EFFECTIVENESS OF PLANNED TEACHING PROGRAMME ON KNOWLEDGE REGARDING FOOD BORNE DISEASES AND FOOD SAFETY AMONG CHILDREN AT SELECTED SCHOOLS, SALEM.

By

Ms.JESSY. V

Reg. No: 301416551

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CERTIFICATE

This is to certify that the dissertation entitled **"Effectiveness of Planned Teaching Programme on Knowledge regarding Food borne diseases and Food Safety among Children at Selected Schools, Salem"** is a bonafide work done by **Ms.JESSY. V**, Sri Gokulam college of Nursing, Salem in partial fulfilment of the university rules and regulation for the award of Master of Science in Nursing under the guidance and supervision during the academic year 2015- 2016.

Name & Signature of the Guide **: ……**

Prof. Dr. K. TAMIZHARASI, Ph.D (N).,
Principal,
Sri Gokulam College of Nursing,
3/836, Periyakalam, Neikkarapatti,
Salem - 636 010.

Name & Signature of the Head of Department **: ……**

Prof. Mrs. E. NAGALAKSHMI, M.Sc (N).,
HOD of Paediatric Nursing,
Sri Gokulam College of Nursing,
3/836, Periyakalam, Neikkarapatti,
Salem - 636 010.

Name & Signature of the Dean/ Principal **: ……**

Prof. Dr. K. TAMIZHARASI, Ph.D (N).,
Principal,
Sri Gokulam College of Nursing,
3/836, Periyakalam,
Neikkarapatti, Salem - 636 010.

CERTIFICATE

Certified that this is the bonafide work of **Ms.JESSY. V,** Final Year M.Sc(Nursing) Student of Sri Gokulam College of Nursing, Salem, Submitted in Partial fulfilment of the requirement for the Degree of Master of Science in Nursing to The Tamil Nadu Dr.M.G.R. Medical University, Chennai under the Registration No.**301416551**.

College Seal:

Signature : **……**

Prof. Dr. K. TAMIZHARASI, Ph.D (N).,

PRINCIPAL,

SRI GOKULAM COLLEGE OF NURSING,

3/836, PERIYAKALAM,

NEIKKARAPATTI, SALEM – 636 010

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Approved by the Dissertation Committee on: 17.12.2015

Signature of the Clinical Speciality Guide : ……..

……..…

Prof. Dr. K. TAMIZHARASI, Ph.D (N).,
Principal,
Sri Gokulam College of Nursing,
3/836, Periyakalam,
Neikkarapatti, Salem - 636 010.

Signature of the Medical Expert :

……..…

Dr.R.RAMALINGAM, M.D., D.Ch., FAAP.,
Senior Consultant Paediatrician,
Sri Gokulam Hospital,
Salem – 636 004.

Signature of the Internal Examiner with Date	**Signature of the External Examiner with Date**

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ABSTRACT

A study was done to assess the effectiveness of planned teaching programme (PTP) on knowledge regarding food borne diseases and food safety among children at selected schools, Salem using quantitative research approach with Quasi experimental pre-test and post-test with control group design. The study was conducted among 68 children in 11, 12, 13 years of age group, who were selected by systematic random sampling technique from Sri Ramalinga Vallalar higher secondary school, Salem for experimental group and Sri Gayathri higher secondary school, Salem for control group. Data was collected from 30.08.2015 to 27.08.2015. A close ended questionnaire was used to assess the knowledge of children. The investigator taught the children regarding food borne diseases and food safety by using flash cards and

puzzle game. After the planned teaching programmes on the 7th day post-test was conducted. Data was analysed by using descriptive and inferential statistics.

Pre-test level of knowledge regarding foodborne diseases and food safety showed that 15(44%) children had inadequate knowledge, 19(56%) had moderately adequate knowledge and none of them had adequate knowledge. During the post-test 9(33%) had adequate knowledge, 25(66%) had moderately adequate knowledge and none of them had inadequate knowledge regarding food borne diseases and food safety. The overall pre-test mean score was 12.71 ± 8.7 which was 45.3 and the post-test mean score was 17.68±10.39 which was 66.3 revealing a difference of 21.45%. Highly significant difference found between pre-test and post-test scores of level of knowledge in all the areas and in the overall level of knowledge at $P \leq 0.001$ level ($t=17.53$). There was no significant association between the knowledge regarding foodborne diseases and food safety among children and with their demographic variables ($P>0.05$). This study revealed that the planned teaching programme on knowledge regarding food borne diseases and food safety was an effective intervention to increase the knowledge of children.

CHAPTER – I

INTRODUCTION

"Children are the greatest imitators, so given them something great to imitate"

- Anonymous

Food surveillance is essential for the protection and maintenance of community health. It implies on monitoring the food safety. Food is a potential source of infection and liable for contamination by microorganism at any point during its journey from the producer to the consumer. Food safety implies on the production, handling, distribution and serving of all types of food, so it is important to prevent food borne illness. (Park.K, 2013)

WHO, explains food safety is a scientific discipline describing handling, preparation and storage of food in ways that prevent the food borne illness. This includes a number of routines that should be followed to avoid potentially severe health hazards. (WHO, 2015)

Food safety is a growing concern of global health that directly or indirectly affects the health and well being of people. The ongoing survey of WHO through food borne diseases burden are epidemiologically reviewed and the groups are quite bothersome and clearly draw the attention of various stake holders in food manufacturing and the processing industries. (Praveen Kulkarni, 2015)

Food borne diseases are defined as infections which are toxic in nature, caused by agents that enter the body through the ingestion of food. Food borne diseases are increasing throughout the world because of urbanization, industrialization, tourism and in mass catering systems. (Park.K, 2013)

Food borne diseases are caused by ingestion of contaminated food, drinking water contaminated with either living bacteria or their toxins or inorganic chemical substances, poisons derived from plants and the animals. (Kamala. G, 2013)

India being a country with diverse socio-economic background, wide agricultural practices, storage process and habits, dynamic climate conditions with change in eating habits and life style practices need special attention towards food safety. (Praveen Kulkarni, 2015)

Good hygiene and proper food handling should be practical to prevent child from infection and malnutrition. Good food is essential for good health and is one of the greatest pleasure in life. Despite advances in technology, providing food that is safe to eat and keeping it safe is still a worldwide public health problem. It is very important that more industrialized countries who have serious food safety problems bring improvements in food safety through food safety legislation, public health education about food hygiene and food safety which needs to be increased.

NEED FOR THE STUDY

Food borne diseases are common in developing countries because of poor food handling and sanitation practices, inadequate food safety laws, weak regulatory system, lack of financial resources and lack of education. There are major health problems are in developed and developing countries. The World Health Organization estimates that in developed countries, upto 30% of population suffer from food borne diseases each year, whereas in developing countries upto 2 million deaths are estimated per year. People all over the world get sick from the food they eat everyday. Millions of people become sick each year because of food borne diseases. (Daniel. H. Chercos, 2014)

Worldwide food borne diseases are major health burden leading to high morbidity and mortality. The global burden of diarrhoea involves 3-5 billion cases with nearly 1.8 million deaths annually, occurring mainly to young children caused by contaminated food. In India, two separate food poisons due to outbreak of Salmonella and Salmonella vein affected 34 and 10 people respectively due to non-vegetarian food consumption. The food borne diseases are increased more than twice compared to previous years. (Center for Disease Control, 2009)

Food safety progress report shows that there is a 14% increase in outbreak of Campylobacter compared to the previous year and Vibrio increased to 43%, other organisms such as E.Coli, listeria, salmonella, yersinia has no change. (CDC, 2012)

Change in the consumers habit, increased number of people are buying and eating food prepared in public places. Due to urbanization, agriculture and animal production demands are increasing as the world population grows, so the country faces both opportunity and challenge for the food safety. Temperature changes also affect the food safety. There were estimated 582 million cases of 22 different food borne endemic diseases responsible for more deaths. Salmonella typhi (35,000) and 40% people suffer from endemic disease caused by contaminated food. Keeping this in mind the need for increasing food safety and standards for the production to the consumer, WHO announced the theme for World Health Day, 2015 as “Farm to plate”, “Make food safe”. (Praveen Kulkarni, 2015)

Unsafe food is aimed to the death of an estimated 2 million people annually, food containing harmful bacteria, viruses, parasites and chemical substance that are responsible for more than 200 diseases ranging from diarrhoea to cancer. Unsafe food creates anxious cycle of diseases and malnutrition, particularly affecting infants young children and elderly, sick. Food borne diseases impart socioeconomic

development by staining health care system and harming national economics. (WHO, 2015)

There are several factors increasing the risk of food borne illnesses, such as the weakened immune system that plays a role in causing food borne diseases. Young children, and pregnant women do have less ability to fight off food borne infections. Improper storage and handling of food increases the risk of food poisoning. (David WK Acheson, 2012)

Children are particularly vulnerable to food borne illnesses due to their immature immune system. The consumers need for food safety is greatly increasing but the level of food safety education remains still low. The lack of food safety knowledge results in food related health problems. Consumers who are under educated, have limited food safety knowledge have poor food handling practices. Children are most likely to engage in unsafe hand washing practices, as their food safety knowledge level is not high enough to protect them. The development of a food safety education program for children should be tailored to their needs, so that they can practice food safety effectively in school as well as in home. (School Health Services, 2007)

During the early 21st century food borne diseases shall be expected to increase especially in the developing countries. Meeting the huge challenges of food safety in the 21st century will require the application of new methods to identify, monitor and assess the food borne hazards. This meets the education needs of consumers and professional handlers, thereby we can achieve “Health for all”. The high incidence of food borne illnesses has led to an increase in global concern about food safety. (Irranna Ariun Kajagar, 2014)

The Food Safety and Standard Authority of India has been established under the food safety and standards act, 2006 giving standards for regulating, manufacturing, processing, distribution, safe and important of food to ensure safe and wholesome food for human consumption.

Food borne diseases and food safety among children is very essential and important first step is increasing knowledge. Schools are the natural settings where the delivery of education takes a premordial prevention of food borne diseases in children. (Tami. J. Cline, 2005)

The study on knowledge regarding food borne disease and food safety among children is vital, so the researcher felt that there is a need to conduct.

STATEMENT OF THE PROBLEM

A Study to Assess the Effectiveness of Planned Teaching Programme (PTP) on Knowledge regarding Food borne diseases and Food Safety among Children at Selected Schools, Salem.

OBJECTIVES

- To assess the existing knowledge regarding food borne diseases and food safety among children in experimental group and control group.
- To assess the effectiveness of Planned teaching programme on knowledge regarding food borne diseases and food safety among children in experimental group.
- To associate the pre and post-test knowledge scores regarding food borne diseases and food safety among children in experimental and control group with their selected demographic variables.

OPERATIONAL DEFINITIONS

Effectiveness:

It refers to gain knowledge regarding food borne diseases and food safety among children in experimental group as measured by significant difference between the pre-test and post-test knowledge scores in experimental group and between the post-test knowledge scores of experimental and control group.

Planned teaching programme:

It is a well planned teaching programme on imparting specific knowledge regarding food borne diseases and food safety among children through education aided with flash cards and puzzle game. It includes definition, causes, symptoms and prevention of common food borne diseases including food safety measures.

Knowledge:

It is the correct response given by the children to the items in the close ended questionnaire regarding food borne diseases and food safety.

Food borne diseases:

It refers to the diseases caused by agents that enter the body through the ingestion of food. It may be bacterial, viral, parasitic, toxic and other chemicals.

Food safety:

All conditions and measures that are necessary during the production, processing, storage, distribution and preparation of food to ensure safe, sound wholesome food fit for human consumption. In this study food safety related to storage, purchase and preparation of food is included.

Children:

Refers to children attending school between the age group of 11 - 13 years.

ASSUMPTIONS

1. Children may have some knowledge on food borne diseases and food safety.
2. Planned teaching programme regarding food borne diseases and food safety may improve their knowledge.
3. The level of knowledge regarding food borne diseases and food safety among children may differ according to their demographic variables.

HYPOTHESES

H_1: There is a significant difference between pre-test and post-test knowledge scores regarding food borne diseases and food safety among children in experimental group at $P \leq 0.05$ level.

H_2: There is a significant difference between post-test knowledge scores regarding food borne diseases and food safety among children in experimental group and control group at $P \leq 0.05$ level.

H_3: There is a significant association between pre-test knowledge score of children in experimental group and control group regarding food borne diseases and food safety with their selected demographic variables at $P \leq 0.05$ level.

H_4: There is a significant association between post-test knowledge score of children in experimental group and control group regarding food borne diseases and food safety with their selected demographic variables at $P \leq 0.05$ level.

PROJECTED OUTCOME

This study evaluates the effectiveness of structured teaching programme on knowledge regarding food borne diseases and food safety. This programme will improve the knowledge of children between the age group of 11-13 years regarding food borne diseases and food safety.

Conceptual framework based on Imoge King's Goal Attainment Theory (1981)

Six major concepts deciding the phenomena:

Perception:

It refers to people representation of reality. It is not observable but it can be inferred. Here the investigators perception is the need for planned teaching programme on knowledge regarding food borne diseases and food safety among school children in selected schools.

Judgement:

The investigator decides to provide education among school children to improve their knowledge regarding food borne diseases and food safety.

Action:

It refers to the changes that have to be achieved. The nurse educator's action is plan for planned teaching programme on knowledge regarding food borne diseases and food safety among school children to update their knowledge.

Reaction:

In this study the investigator and child reaction is to set mutual goal which is increasing the knowledge regarding food borne diseases and food safety.

Interaction:

The investigator interacts with the children by giving pre-test and planned teaching programme.

Transaction:

This is the achievement of the goal. In this stage the investigator reassesses the knowledge regarding food borne diseases and food safety among school children by conducting post-test.

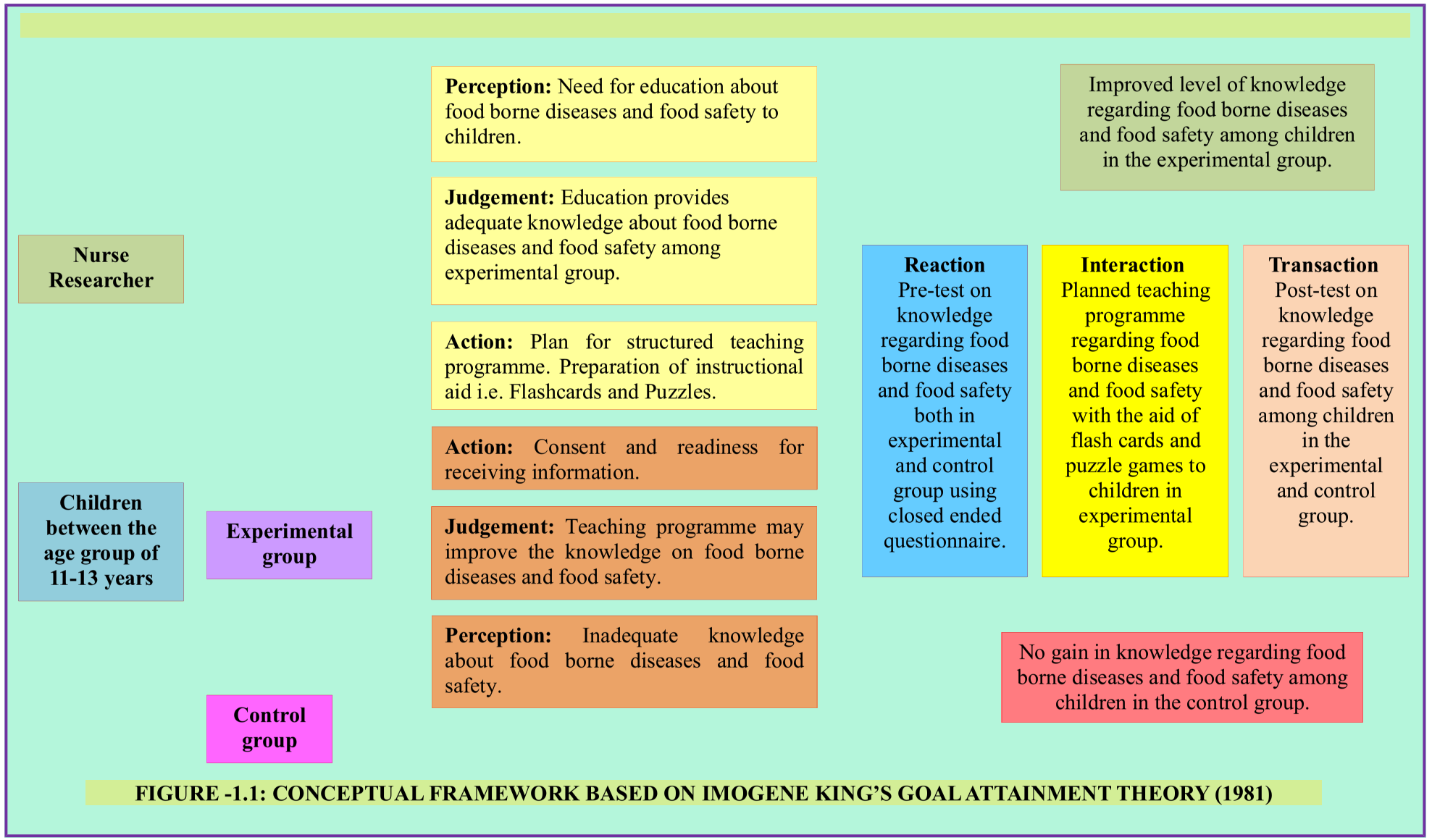


FIGURE -1.1: CONCEPTUAL FRAMEWORK BASED ON IMOGENE KING'S GOAL ATTAINMENT THEORY (1981)

CHAPTER – II

REVIEW OF LITERATURE

The task of reviewing literature for research involves the systematic identification, selection, critical analysis, and written description of existing information on the topic of interest. It is usually advisable to undertake a literature review on a subject before actually conducting a research project. Such a review can play a number of important roles. **(Polit D.F. and Hungler, 2003)**

In this chapter, literature was reviewed theoretically, empirically and is organized as following heading,

Review of literature related to

- Incidence and prevalence of food borne diseases among children.
- Knowledge of children regarding food borne diseases and food safety.
- Programmes related to food safety.

1. Incidence and prevalence of food borne diseases among children.

A study was conducted to describe the epidemiology of foodborne diseases outbreak in schools and to identify the preventive measures. The data from ill persons identified through food borne outbreak investigations and subsequently reported to the centre for disease control. The local health departments reported 604 outbreaks of foodborne disease in schools. The mean number of outbreaks annually was 25. In 60% of the cases etiology was not determined and in 455 a specific food vehicle of transmission was not determined. Salmonella was the most commonly identified pathogen which accounted for 36% of out breaks. The most commonly reported food preparation practices that contributed to these school related outbreaks were improper food storage and holding temperature and food contaminated by a food handler. The recommendation made from this study is to strengthen food safety measures of

schools would better protect students and school staff from outbreak of food borne illnesses. **(CDC, 2010)**

A study was conducted regarding food borne diseases illness rates in United States, Europe and Asia. The findings reveal that the incidence of salmonella serovar enteritis is the highest among African American about (2.0/100,000 population) and the foodnet data indicated that the incidence of salmonella typhi is greater in Asians. Foodnet data from 2008 to 2011 generally supported to prevent that majority populations suffer from a greater incidence of salmonella. **(Jenifer. J, 2013)**

A fact sheet from the American Academy of pediatrics showed children fall higher risk when exposed to foodborne pathogens because of their less immune system. The incidence of many pathogens remain higher for the young children. Norovirus is the leading cause of medically attended acute gastroenteritis among children. The number of annual hospitalizations in children in the year 2009 and 2010 is more than 14,000 and nearly 281,000 had visited emergency treatment. The study results revealed that policy makers and regulators should consider the greater impact of these illnesses at risk population, when setting food safety standards. **(CFI, 2014)**

A case control study was conducted in East district region among school children to determine the source, mode of contamination and causative organisms. The children were selected with abdominal symptoms and control group were of the same size and class without abdominal symptoms. Systematic sampling is used and the interview continued by structured questionnaire. Total of 202 samples were selected. The mean age of the cases were 11.05 (range 6-16, SD ± 2.14) with mean age of controls were (11.18±2.63). Majority of the cases were 8-11 years of group followed by 12-15 years of group. It showed the outbreak with minimum and maximum incubation period of 2 hours and 61 hours respectively. They recommended

that routine monitoring and surveillance of foodborne diseases by school feeding programme should be undertaken along with health services. **(Ghana med, 2015)**

2. Knowledge of children regarding foodborne diseases and food safety.

A cross sectional study was conducted on food safety knowledge among secondary school children in Johar. Totally 399 students participated in the study from both schools. Data was collected through a self instructed questionnaire and comparison made with both the schools. There were no much differences in the knowledge of respondents. This study says that awareness to the dangers of improper cooking, knowledge of specific food safety has no effect on willingness to change the behaviour, although student level of knowledge behaviour associated with the food safety was low, there was meaningful correlation ($r=0.184$, $P<0.01$) between knowledge and practice. The study findings offered continuously increasing the educational programme on food safety increases the awareness of students regarding continuous occurrence of food borne illness. **(M.N.Norazmirela, 2012)**

The health campaign conducted regarding food safety and hygiene among children by descriptive method. Students were selected from 12 public primary compulsory schools and divided into two groups. Pre and post interventional questionnaires were administered in both groups. Two hundred forty nine students participated in this study. Result revealed that overall improvement in children knowledge in both aspects. The food safety classes and children awareness on food related risk will lead to benefit for the primary preventive aspects. **(Lossaco.C, 2013)**

3. Programmes related to food safety

International Life Science Institute in India had organized a seminar on regulatory system for risk assessment on food safety for public health on February 09, 2009 in New Delhi. The objectives of the seminar was to have expect consultation on

setting up an appropriate food safety surveillance system under the recently passed food safety and standard act for ensuring availability of safe food and water thereby promoting public health. They recommended that the committee should be appointed to collect, organize and analyse the information on food borne diseases throughout the country and to plan and implement regular short term surveys to detect the sources of food contamination. They also recommended the monitoring and surveillance system requires regular testing of identified food contaminants along with the food chain for the risk ranking. **(Food safety standard act, 2009)**

The centre for disease control and prevention (CDC) reported that each year 325,000 hospitalization and 5,000 deaths occurring due to food borne illnesses. The active surveillance network reported that Salmonella E.Coli, Camphycobacter, Shigella continued to a leading cause for foodborne diseases and the outbreaks are increased in recent years, therefore foodborne illness risk reduction and control interventions must be implemented at every step throughout the food preparation process and more effective food safety education programme for food handlers as well as for the consumers are needed to increase the food safety. **(Nyachuba, 2010)**

Food safety regulations are framed to exercise and control overall types of food produced, processed, sold so that the customer is assured that the food consumed will not cause any harm. Global harmonization of food regulations is needed to improve food and nutrition security from the Indian perspective. The millennium development goals put forward to transform developing societies incorporates many food safety issues. The success of the millennium goal including the poverty reduction, depends on the effective reduction of foodborne diseases, particularly among young children and women. **(Department of health science and nutrition, 2013)**

CHAPTER – III

RESEARCH METHODOLOGY

The research methodology is the systematic, theoretical analysis of the procedures applied to a field of study. **(Kothari, 2004)**

The present study aims to assess the effectiveness of planned teaching programme on knowledge regarding food borne diseases and food safety among children at selected schools, Salem.

RESEARCH APPROACH

Quantitative research approach was adopted for this study.

RESEARCH DESIGN

The overall mean for addressing a research question, including specification for enhancing the study's integrity. **(Polit D.F, & Beck Tatano, 2006)**

Quasi experimental pre-test and post-test with control group research design was used for this study.

E	O_1	X	O_2
C	O_1		O_2

E = Experimental group

C = Control group

X = Intervention

O_1 = Pre-test

O_2 = Post-test

POPULATION

All elements (people, objects, events or substances) that meet the sample criteria for inclusion in a study. **(Nancy Burns, 2007)**

The population of the study was children who were between the age group of 11 - 13 years. There were total number of 200 students studying in Sri Ramalinga Vallalar Higher Secondary School and total number of 250 Students studying in Sri Gayathri Higher Secondary School, Salem.

SETTING

The physical location and conditions in which data collection takes place in a study. **(Polit F. Denise, 2004)**

The study was conducted in Sri Ramalinga Vallalar Higher Secondary School, Salem for experimental group and Sri Gayathri Higher Secondary School for control group. These schools are situated 4 kms away from the New Bus stand, Salem. These schools were selected based on availability of subjects, economy of time and money, access and the feasibility.

SAMPLE

Subset of the population that is selected for a study. **(Nancy Burns, 2007)**

The sample of the study was children between the age group of 11 - 13 years who fulfilled the inclusion criteria.

Sample Size:

The number of subjects, events, behaviour or situation that are examined in a study. **(Nancy Burns, 2007)**

The sample size for experimental group and control group was 34 each

The formula used for sample size estimation is $4pq/l^2$

Where P = Prevalence population

Q = 1 – P

l^2 = permissible error to the estimation of P

Sampling technique:

Systematic random sampling technique was adopted for selecting the samples for the study.

$$K = \frac{\text{Total number of samples}}{\text{Sample size}}$$

315/ 34 = 9 - Every 9th sample was selected for the experimental group.

250 / 34 = 8 - Every 8th sample was selected for the control group.

The first sample in each group was chosen by lottery method from among the first 9 numbers in the list in experimental group and from among the first 8 numbers in the list in control group.

Criteria for sample selection:

Inclusion criteria:

The children who were,

1. willing to participate in the study.
2. between the age group of 11 - 13 years.
3. able to understand and read Tamil.

Exclusion criteria:

The children who were,

1. absent at the time of data collection.
2. not co-operative.

VARIABLES

Independent variable:

Planned teaching programme regarding food borne diseases and food safety.

Dependent variable:

Knowledge of children regarding food borne diseases and food safety.

TOOLS USED FOR THE STUDY

1. Close ended questionnaire to assess the knowledge regarding
   a) food borne diseases.
   b) food safety.
2. Planned teaching programme regarding food borne diseases and food safety.

DESCRIPTION OF THE TOOL

1. Close ended questionnaire:

The tool to collect data from the children was developed after review of books, journals, articles and in consultation with the guide and experts.

Section-I: Demographic variables

This section consisted of demographic data like age, sex, standard, place of living, religion, parent's educational status, area of living, parent's job, and previous information received related to food born diseases and food safety.

Section- II(a):

Close ended questionnaire to assess the knowledge regarding food borne diseases among children. It consisted of introduction to food borne diseases, definition, causes, epidemiology, signs and symptoms.

Section –II(b):

Close ended questionnaire to assess the knowledge regarding food safety including introduction, terms, importance of food safety, clean hands, clean kitchen and utensils, separating cooked foods from raw foods, food storage, safe cooking and optimal temperature.

2. Planned Teaching Programme:

Planned teaching programme regarding food borne diseases and food safety was given to the children by the help of flash cards and puzzle game. It consisted of the following contents such as food borne diseases definition, causes, types of contaminants and mode of transmission. Food safety includes definition, importance of handwashing, keeping clean kitchen, storage and purchasing of food items.

VALIDITY AND RELIABILITY OF THE TOOL

Validity

Validity of the tool was obtained from three medical and four nursing experts. The content of the tool was found adequate and minor suggestions given by the experts were incorporated.

Reliability

Reliability of the tool was measured by test retest method. The researcher selected 5 children between the age group of 11-13 years and administered the close ended questionnaire. The reliability value was $r^1 = 0.9$ which revealed that the tool was reliable.

PILOT STUDY

A formal permission was obtained from school Head master. Pilot study was conducted from 24.08.2015 to 29.08.2015. The researcher selected 5 children between the age group of 11-13 years. Pre-test was conducted using the close ended questionnaire on food borne diseases and food safety. The children were taught about food borne diseases and food safety with the help of puzzles and flash cards. Post-test was conducted on 27.08.2015. The finding of the pilot study revealed the feasibility of proceeding to the main study.

METHOD OF DATA COLLECTION

Ethical consideration:

Written permission was obtained from the school headmaster to conduct the study. Informed written consent was taken from the children who were willing to participate in this study.

Data Collection Procedure

Pre-test:

Data collection was done from 30.08.15 to 26.09.15. The researcher visited the school and maintained good rapport with the children. The researcher selected 34 children between the age group of 11-13 years by systematic random sampling technique and conducted pre-test with the help of close ended questionnaire to children in experimental group on 30.08.15 and to children in control group on 01.09.15.

Planned Teaching Programme:

Planned teaching programme regarding food borne diseases and food safety was given to the children by the help of flash cards and puzzle game to experimental group children. Each day two groups with each group consisting 6 children were taught. The teaching programme was around 40 minutes for each group. Planned teaching programme was given from 02.09.15 to 04.09.15.

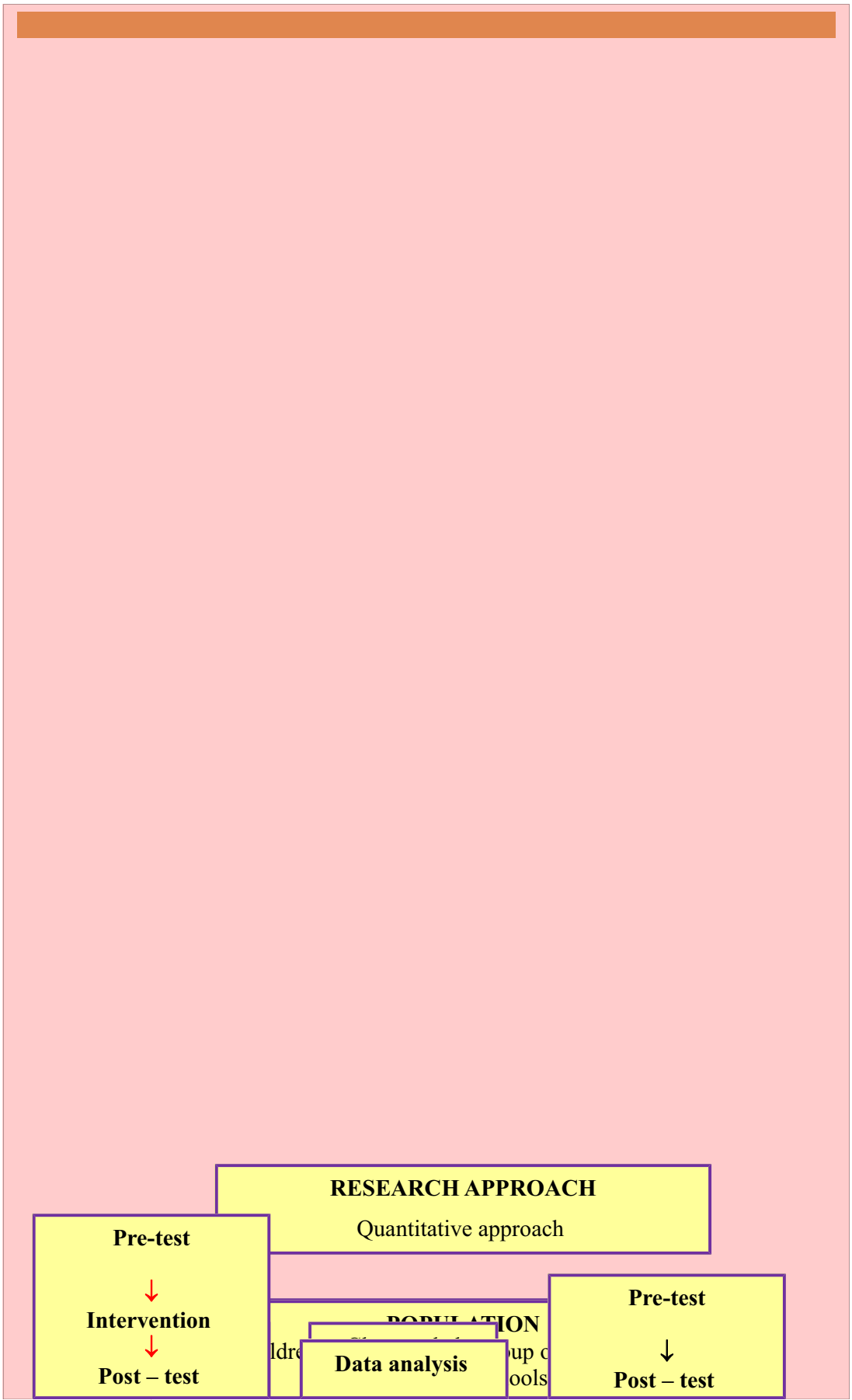
Post-test:

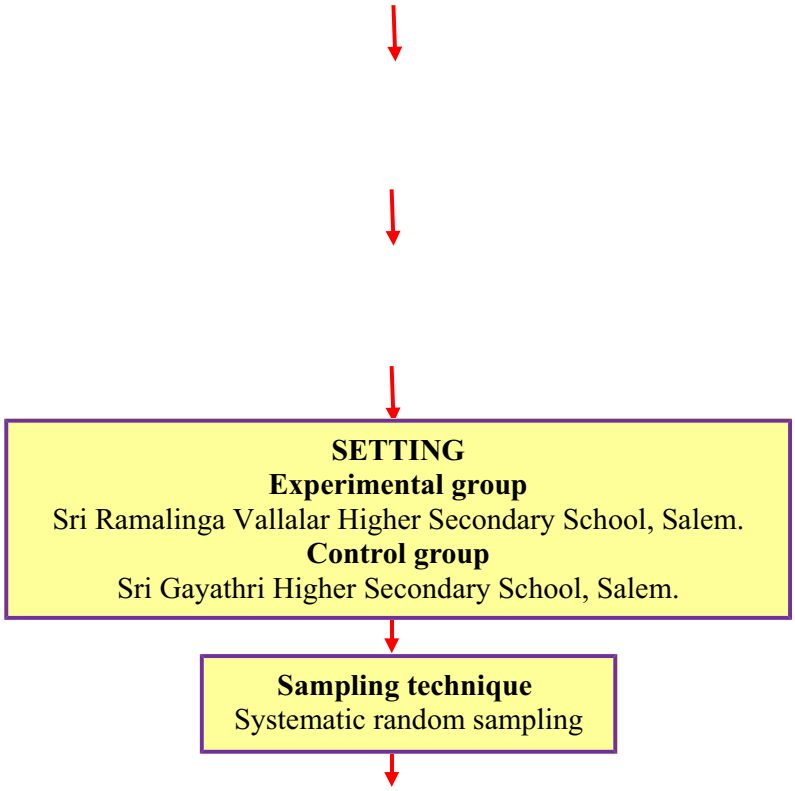
Post-test was conducted on the 7^{th} day after the planned teaching programme from 09.09.15 to 11.09.15 for experimental group and for control group on 08.09.2015. Pamphlets were distributed to the control group after the post-test.

PLAN FOR DATA ANALYSIS

Descriptive statistics such as percentage, mean, standard deviation was used to categorise the data. Inferential statistics such as paired ‘t’ test and independent ‘t’ test

was used to find the effectiveness of intervention and chi-square was used to associate the knowledge of children with their selected demographic variables.





CHAPTER -IV

DATA ANALYSIS AND INTERPRETATION

Research data must be processed and analysed in an orderly fashion so that patterns and relationship can be discerned, validated and hypotheses can be tested. Quantitative data analyzed through statistical analysis includes simple procedures as well as complex and sophisticated methods. **(Polit, 2004)**

This chapter deals with analysis and interpretation of the data collected to assess the effectiveness of planned teaching programme on knowledge regarding food borne diseases and food safety among children at selected schools, Salem. The collected data were tabulated, organized and analyzed by using both descriptive and inferential statistics.

The findings are presented under the following sections

Section-A:

Distribution of children according to their demographic variables.

Section-B:

Distribution of children according to their pre-test level of knowledge in experimental and control groups regarding food borne diseases and food safety.

Section-C:

a) Distribution of children in experimental and control group according to post-test level of knowledge regarding food borne diseases and food safety.
b) Comparison between the pre-test and post-test knowledge scores of children in experimental group regarding food borne diseases and food safety.

c) Comparison of area wise mean, SD, mean difference and difference in mean percentage of pre-test and post-test knowledge scores of children in experimental group regarding food borne diseases and food safety.

Section-D: Hypotheses testing

a) Comparison between the pre-test and post-test knowledge score regarding food borne diseases and food safety among children in experimental group.
b) Comparison between the post-test knowledge scores regarding food borne diseases and food safety among children in experimental group and control group.
c) Association between the pre-test level of knowledge scores of children regarding food borne diseases and food safety in experimental group and control group with their selected demographic variables.
d) Association between the post-test level of knowledge scores of children regarding food borne diseases and food safety in experimental group and control group with their selected demographic variables.

Section-A

Distribution of children according to their demographic variables.

Table – 4.1: **n = 68**

S.No	Demographic variables	Experimental group		Control group	
		f	%	f	%
1.	Age in years				
	a) 11 years	12	36	12	36
	b) 12 years	11	32	11	32
	c) 13 years	11	32	11	32
2.	Sex				
	a) Male	20	59	24	71
	b) Female	14	41	10	29
3.	Standard				
	a) Sixth	10	29	10	29
	b) Seventh	13	38	13	38
	c) Eighth	11	32	11	32
4.	Place of living				
	a) Rural	11	32	20	59
	b) Urban	23	68	14	41
5.	Religion				
	a) Hindu	34	100	34	100
	b) Muslim	-	-	-	-
	c) Christian	-	-	-	-
	d) Others	-	-	-	-

		Father		Mother		Father		Mother	
		f	%	f	%	f	%	f	%
6.	Parents' educational status								
	a) No formal education	-	-	3	9	1	3	5	15
	b) Primary education	14	41	12	35	13	38	3	9
	c) Secondary education	7	21	6	18	11	32	16	47
	d) Higher secondary education	10	29	10	29	7	21	10	29
	e) Degree	3	9	3	9	2	6	-	-

		Father		Mother		Father		Mother	
		f	%	f	%	f	%	f	%
7.	Parents Job								
	a) Unemployee	-	-	9	26	-	-	19	56

	b) Daily wages	17	50	9	26	18	53	8	23
	c) Private Employee	2	6	5	15	-	-	1	3
	d) Govt. Employee	1	3	4	12	2	6	-	-
	e) Self employee	5	15	4	12	13	38	6	18
	f) Business	9	26	3	9	1	3	-	-
8.	Previous information received related to food born diseases and food safety								
	a) No information	-		-		1		3	
	b) Friends / relatives	1		3		3		9	
	c) Teachers	31		91		19		56	
	d) Radio/ Television	-		-		9		26	
	e) Internet	2		6		2		6	

Distribution of children according to their age shows that in experimental group, more or less similar percentage of children 12(36%), 11(32%) and 11(32%) are in 11, 12, 13 years of age group respectively. Similar percentage of children (36%, 32%, 32%) are also found in control group in 11, 12, and 13 years of age group respectively. It reveals that more or less similar percentage of children are found in all the age groups in both experimental and control groups.

Distribution of children according to their gender depicts that in experimental group the highest percentage of children 20(59%) are males and 14(41%) are females. Similarly in control group also the highest percentage 24(71%) are males and 10(29%) are females. This reveals that the highest percentage of children are males in both experimental and control groups.

Distribution of children according to their standard shows that in experimental group more or less similar percentage of children 10(29%), 13(38%), and 11(32%) are in 6^{th}, 7^{th}, 8^{th} standards respectively. Similar percentage of children (29%, 38%, 32%) are also found in control group in 6^{th}, 7^{th}, 8^{th} standards respectively. It reveals that more or less similar percentage of children are found in all standards.

Distribution of children according to the place of living depicts that in experimental group 11(32%) are from rural and 23(68%) are from urban area and in control group 20(59%) are from rural and 14(41%) are from urban area. This reveals that the highest percentage of the children in experimental group belong to urban area and in control group highest percentage of them belong to rural area.

Distribution of children according to their religion shows that all 34(100%) children belong to Hindu religion both in experimental and control groups.

Distribution of children according to their parents' educational status shows that in experimental group 14(41%) fathers studied upto primary education, 7(21%) studied upto secondary education, 10(29%) studied upto higher secondary education and 3(9%) have degree. With regard to mothers 3(9%) have no formal education, 12(35%) studied upto primary education, 6(18%) studied upto secondary education, 10(29%) have higher secondary education, 3(9%) have degree education. This reveals that highest percentage of fathers and mothers of children have studied upto primary education and only a few have degree education.

In control group 1(3%) father has no formal education, 13(38%) studied upto primary education, 11(32%) studied upto secondary education, 7(21%) studied upto higher secondary education, 2(6%) studied upto degree and in mothers 5(15%) have no formal education, 3(9%) studied upto primary education, 16(47%) studied upto secondary education, 10(29%) studied upto higher secondary education.

Distribution of children according to their parents' occupation reveals that in experimental group 17(50%) fathers are in daily wages, 2(6%) are private employees, 1(3%) is a government employee, 5(15%) are self employed, 9(26%) are doing business. With regard to mothers 9(26%) are housewives, 9(26%) are daily wages, 5(15%) are private employees, 4(12%) are government employees, 4(12%) are self employed, 3(9%) are doing business.

In control group 18(53%) fathers are daily wages, 2(6%) are Government employee, 13(38%) are self employee, 1(3%) is doing business. With regard to mothers 19(56%) mothers are housewives, 8(23%) are daily wages, 1(3%) is a private employee, 6(18%) are self employed.

Distribution of children according to the previous information received related to food borne diseases and food safety reveals that in experimental group 1(3%) has received information from friends, 31(91%) have received information through teachers, 2(6%) have received information from the internet and in control group 1(3%) has not received information, 3(9%) received information from friends, 19(56%) have received through their teachers, 9(26%) have received from television, 2(6%) have received from internet. This reveals that most of the children have received the information through teachers regarding food borne diseases and food safety.

Section-B

Distribution of children according to their pre-test level of knowledge in experimental and control groups regarding food borne diseases and food safety.

Table 4.2:

Frequency and Percentage distribution of children regarding food borne diseases and food safety according to their pre-test level of knowledge in experimental and control group.

n=68

Level of knowledge	Experimental group n = 34		Control group n = 34	
	f	%	f	%
Adequate knowledge	-	-	-	-
Moderately adequate knowledge	19	56	26	76
Inadequate knowledge	15	44	8	24

The above table shows that, in experimental group 15(44%) have inadequate knowledge, highest percentage of children 19(56%) have moderately adequate knowledge and in control group majority of them 26(76%) have moderately adequate knowledge and 8(24%) have inadequate knowledge. However, none of the children have adequate knowledge in both experimental and control group.

Section-C

a) Distribution of children in experimental and control group according to post-test level of knowledge regarding food borne diseases and food safety.

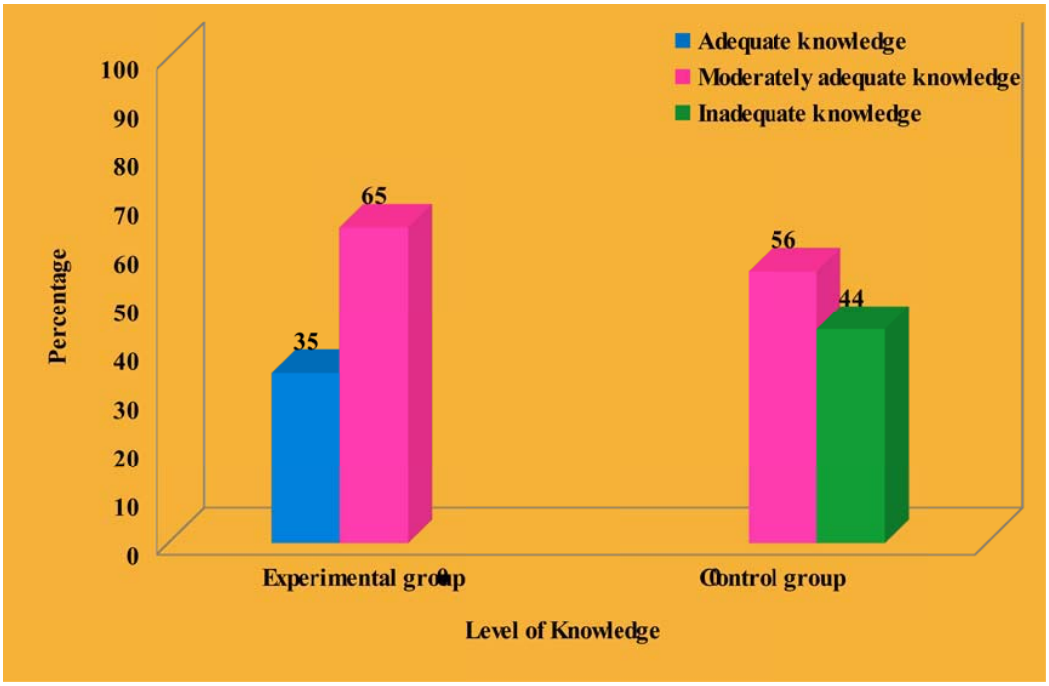


Fig-4.1: Percentage distribution of children according to post-test scores of knowledge regarding food borne diseases and food safety in experimental and control group.

The above figure shows that, in experimental group 12(35%) have adequate knowledge, highest percentage of them 22(65%) have moderately adequate knowledge and none of them have inadequate knowledge. However, in control group 15(44%) have inadequate knowledge, 19(56%) have moderately adequate knowledge and none of the children have adequate knowledge regarding food borne diseases and food safety. This reveals that the post-test scores of children in the experimental group was higher than the control group.

b) Comparison between the pre-test and post-test knowledge scores of children in experimental group regarding food borne diseases and food safety.

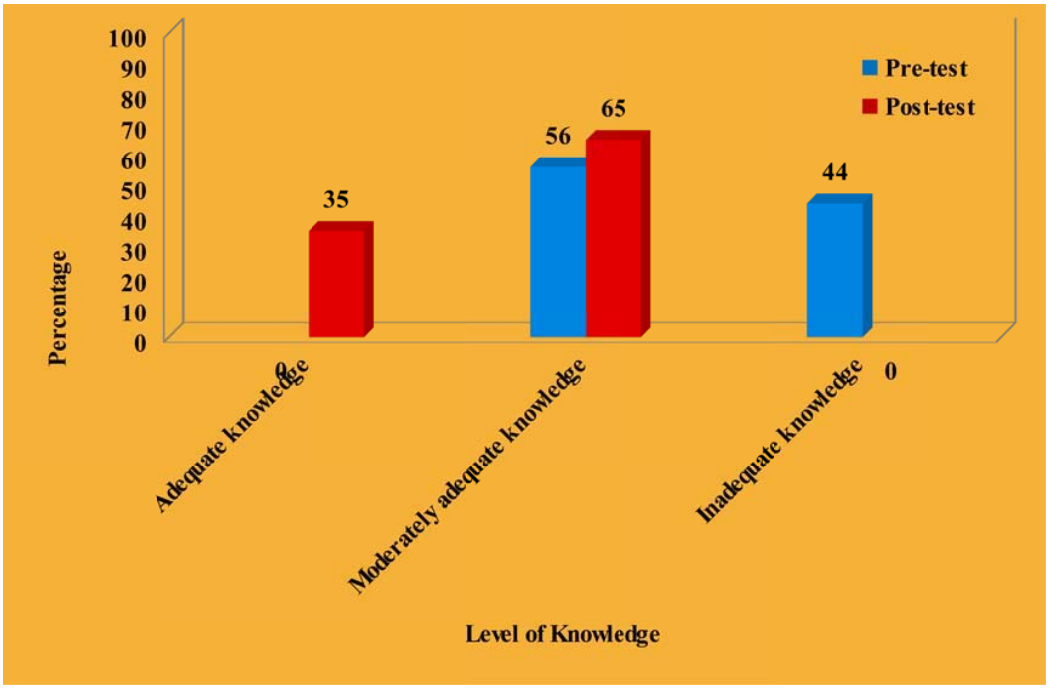


Fig-4.2: Percentage distribution of children in experimental group according to their pre-test and post-test level of knowledge regarding food borne diseases and food safety.

The above figure shows that during pre-test 15(44%) have inadequate knowledge, 19(56%) have moderately adequate knowledge, and none of them have adequate knowledge, whereas in post-test 12(35%) have adequate knowledge, 22(65%) have moderately adequate knowledge and none of them have inadequate knowledge. This reveals that after the planned teaching programme the knowledge scores of the children in experimental group has increased.

c) Comparison of area wise mean, SD, mean difference and difference in mean percentage of pre-test and post-test knowledge scores of children in experimental group regarding food borne diseases and food safety.

Table – 4.3: **n=34**

S.No	Area of knowledge	Max score	Pre-test			Post-test			Difference in mean %
			Mean	SD	Mean %	Mean	SD	Mean %	
1.	Food borne diseases	10	4.0	2.0	40	6.45	2.53	64.5	24.5
2.	Clean hands	4	2.44	1.56	61	2.44	1.56	61	0
3.	Clean kitchen and utensils	4	2.54	1.56	63.5	2.6	1.58	70	6.5
4.	Separating cooled food from raw foods	2	0.91	0.95	45.5	1.3	1.14	65	19.5
5.	Food storage	3	0.76	0.87	25.3	1.69	1.29	56.3	31
6.	Safe cooking methods	3	1.86	1.32	62	2.29	1.51	76.3	14.3
7.	Optimal temperature	1	0.20	0.44	20	0.71	0.78	71	51
	Overall	27	12.71	8.7	45.30	17.68	10.39	66.3	21.45

The above table shows that during post test the highest mean score which is 76.3% obtained in the areas of 'safe cooking method' with the mean score of 2.29±1.51, whereas in the pre-test mean score percentage is 62% (1.86±1.32) revealing a difference in mean percentage of 14.3. The lowest post-test mean percentage of 56.3% is obtained in the area 'food storage' where the pre-test mean percentage was also lower (25.3%) revealing a difference in mean percentage of 31%. However, the lowest difference in mean percentage (6.5%) was obtained in the area "Clean kitchen and utensils". This might be due to highest pre-test mean percentage (63.5%).

Section-D

Hypotheses testing

a) Comparison between the pre-test and post-test knowledge score regarding food borne diseases and food safety among children in experimental group.

H_1: There is a significant difference between pre-test and post-test knowledge scores regarding food borne diseases and food safety among children in experimental group at P≤0.05 level

Table-4.4:

Effectiveness of planned teaching programme on knowledge regarding food borne diseases and food safety among children in experimental group.

n = 34

S.No	Knowledge	Maximum score	Mean	SD	't' value
1.	Pre-test	27	12.71	3.10	10.26*
2.	Post-test		17.68	3.0	

***Significant at P≤ 0.001 level; Table value = 3.55, df = 33**

The above table shows that highly significant difference is found (P≤ 0.001) between pre-test and post-test scores of knowledge regarding food borne diseases and food safety among children in experimental group. Hence it can be interpreted that the difference in the pre-test and post-test mean score value of knowledge regarding food borne diseases and food safety is true difference and hypothesis H_1 is retained. This reveals the effectiveness of planned teaching programme on knowledge regarding food borne diseases and food safety among children.

b) Comparison between the post-test knowledge scores regarding food borne diseases and food safety among children in experimental group and control group.

H_2: There is a significant difference between post-test knowledge scores regarding food borne diseases and food safety among children in experimental and control group at P≤0.05 level.

Table-4.5:

Effectiveness of planned teaching programme on knowledge regarding food borne diseases and food safety among children in experimental and control group.

n=68

S.No	Group	Post-test		't' value
		Mean	SD	
1.	Experimental group	17.68	3.0	8.12*
2.	Control group	12.53	2.16	

***Significant at P≤ 0.001 level; df = 66; table value = 3.37**

The above table shows that highly significant difference found between post-test scores of knowledge of children in experimental and control group regarding food borne diseases and food safety (P≤ 0.001).

Hence it can be interpreted that the difference in the mean post-test scores of children in experimental and control group regarding food borne diseases and food safety is true difference and hypothesis (H_2) is retained. This reveals the effectiveness of planned teaching programme on knowledge regarding food borne diseases and food safety.

c) Association between the pre-test level of knowledge scores among children regarding food borne diseases and food safety and their demographic variables.

H_3: There is a significant association between the pre-test level of knowledge scores among children regarding food borne diseases and food safety in experimental and control group and their selected demographic variables at P≤0.05 level.

Table -4.6:

Association between the pre-test level of knowledge scores of children regarding food borne diseases and food safety in experimental and control group and their selected demographic variables.

S.No	Demographic variables	Control group (n=34)			Experimental group (n=34)		
		χ^2	tv	df	χ^2	tv	df
1.	Sex	2.13	3.84	1	0.68	3.84	1
2.	Standard	3.64	5.99	2	4.86	5.99	2
3.	Place of living	1.96	3.84	1	0.12	3.84	1
4.	Parents educational status						
	Father	2.55	9.48	4	0.44	7.81	3
	Mother	1.21	7.81	3	3.91	9.48	4
5.	Parents Job						
	Father	1.74	7.81	3	1.81	9.48	4
	Mother	0.55	7.81	3	1.30	11.07	5
6.	Previous information related to food born diseases and food safety	4.87	9.48	4	2.59	5.99	2

*** Significant at P≤ 0.05 level**

The above table shows that there is no significant association between the pre-test knowledge regarding food borne diseases and food safety among children with their selected demographic variables (P≥0.05). Hence it can be interpreted that the difference in mean score of pre-test related to the demographic variables were not true difference and only by chance. The research hypothesis H_3 is rejected.

d) Association between the post-test level of knowledge scores of children regarding food borne diseases and food safety in experimental and control group and their selected demographic variables.

H_4: There is a significant association between the post-test level of knowledge scores of children regarding food borne diseases and food safety in experimental and control group and their selected demographic variables at P≤0.05 level.

Table -4.7:

Association between the post-test level of knowledge scores of children regarding food borne diseases and food safety in experimental and control group and their selected demographic variables.

S.No	Demographic variables	Control group (n=34)			Experimental group (n=34)		
		χ^2	tv	df	χ^2	tv	df
1.	Sex	0.19	3.84	1	0.18	3.84	1

2.	Standard	4.00	5.99	2	4.06	5.99	2
3.	Place of living	0.33	3.84	1	1.03	3.84	1
4.	Parents educational status						
	Father	3.61	9.48	4	4.51	7.81	3
	Mother	1.68	7.81	3	6.47	9.48	4
5.	Parents Job						
	Father	3.49	7.81	3	2.24	9.48	4
	Mother	1.77	7.81	3	4.37	11.07	5
6.	Previous information's related to food born diseases and food safety	3.97	9.48	4	0.70	5.99	2

***Significant at P≤ 0.05 level**

The above table shows that there is no significant association between the post-test knowledge regarding food borne diseases and food safety among children with their selected demographic variables (P≥0.05). Hence, it can be interpreted that the difference in mean score of post-test related to the demographic variables were not true difference and only by chance. The research hypothesis H_4 is rejected.

Summary

This chapter dealt with data analysis and data interpretation based on the objectives. Descriptive statistics such as percentage mean and standard deviation was used to categorizing the data. Inferential statistics such as paired 't' test was used to evaluate the effectiveness of planned teaching programme on knowledge regarding food borne diseases and food safety among children. The chi-square test was used to find out the association between the knowledge regarding food borne diseases and food safety among children with their selected demographic variables.

CHAPTER - V

DISCUSSION

This chapter discusses the finding of the study derived from the descriptive and influential statistics. This study was conducted to assess the effectiveness of planned teaching programme on knowledge regarding food borne diseases and food safety among children at selected schools, Salem.

Description of the demographic variables.

- More (or) less similar percentage of children 12(36%), 11(32%), 11(32%) were found in all age groups both in experimental group and control group.
- Highest percentage of the children 20(59%) are males in experimental group and in control group 24(71%) are females.

- More (or) less similar percentage of children 10(29%), 13(38%), 11(32%) were found in 6^{th}, 7^{th}, 8^{th} standards both in experimental group and control group.
- Highest percentage of the children in the experimental group 23(68%) belongs to urban area and in control group 20(59%) were from rural area.
- The present study finding was supported by Diana Mary Varghese, (2012) to assess the effectiveness of an information booklet on knowledge and practice on food safety among food handlers in Learnalaua, which revealed that most of them (92.7%) belongs to rural area, only 7.3% were from urban area.
- All the children 34(100%) in experimental and control group were from Hindu religion.
- Highest percentage of fathers 14(41%) in experimental group and mothers 16(47%) had studied upto secondary education.
- The present study findings were supported by a study conducted by Padma Parameshwari, (2012) to assess the attitude and awareness regarding food safety among mothers which revealed that about 54.1% of the samples received school level education and one fourth were (28.7%) illiterate.
- Highest percentage of the fathers 17(50) in experimental group, 18(53%) in control group were daily wages.
- Similarly in mothers 9(26%) in experimental group and in control group 19(56%) were housewives.
- The present study findings was supported by a study conducted by Padma Parameshwari, (2012) to assess the attitude and awareness regarding food safety among mothers in Tuticorin, which revealed that 55.4% of the samples were housewives.
- Most of the children 31(91%) in experimental group and 19(56%) in control group received previous information regarding food borne diseases and food safety.
- The present study findings was contradictory to the findings of a study done by Diana Mary, to assess the effectiveness of information booklet on

knowledge and practice of food safety among food handlers which revealed only 0.9% received previous information and most of them (99.1%) had not received previous information.

The first objective of the study was to assess the existing knowledge regarding food borne diseases and food safety among children in experimental group and control group.

Majority of children 15(44%) in experimental group and 8(24%) in control group had inadequate knowledge during pre-test. However none of the children has adequate knowledge both in experimental group and control group.

The present study findings are contradictory to the findings of the study by Saradha, et.al, (2015) to assess the knowledge, attitude and practice regarding food safety, which revealed that higher percentage of samples 142(94.7%) had good knowledge regarding food safety. Only 3(5.3%) had poor knowledge on food safety.

The second objective of the study was to assess the effectiveness of planned teaching programme on knowledge regarding foodborne diseases and food safety among children in experimental group.

The pre and post mean score values in experimental group was 12.71±3.10 and 17.68±3.0 respectively, which is significant at P≤0.001 level. This shows the effectiveness of planned teaching programme on knowledge regarding foodborne diseases and food safety among children.

The present study findings was supported by Zhou.WJ, (2014) who conducted a mixed method study on effectiveness of school based nutrition and food safety education programme among primary and junior higher secondary school children in China. The finding of the study shows that intervention group were having mean 9.03±2.75 at baseline and 14.07±3.28 after intervention and in nine months followup knowledge score was 12.35±2.89 and t=29.78 at P<0.001 level.

The third objective of the study was to associate the pre-test and post-test knowledge score regarding foodborne diseases and food safety among children in experimental group and control group with their selected demographic variables.

There is no significant association between the pre-test and post-test level of knowledge and the selected demographic variables both in experimental and control groups ($P \geq 0.05$).

The present study findings was supported by a study conducted by Norazmir, et.al, (2012) who assessed the knowledge and practice on food safety among secondary school students in selected schools in Malaysia, where they found no much association between the level of knowledge and the gender.

CHAPTER – VI

SUMMARY, CONCLUSION, IMPLICATIONS AND RECOMMENDATIONS

This chapter consists of summary, conclusion and implication for nursing practice and the recommendations for further research.

Summary

A true experimental pre-test and post-test with control group research study was conducted to assess the programme on knowledge regarding food borne diseases and food safety among 64 children of 11-13 years selected by systematic random sampling technique. Close ended questionnaire was used to assess the knowledge regarding food borne diseases and food safety. The data collected were analysed by using descriptive and inferential statistics. The conceptual framework was used based on the "Imogene King goal attainment Model".

The major findings are summarized as follows;

- More (or) less similar percentage of children 12(36%), 11(32%), 11(32%) were found in all age groups both in experimental group and control group.
- Highest percentage of the children 20(59%) are males in experimental group and in control group 24(71%) are females.
- More (or) less similar percentage of children 10(29%), 13(38%), 11(32%) were found in 6^{th}, 7^{th}, 8^{th} standards both in experimental group and control group.

- Highest of the children in experimental group 23(68%) belongs to urban area and in control group 20(59%) were from male.
- Majority of the children 34(100%) in experimental and control group were from Hindu religion.
- Highest percentage of the fathers 14(41%) in experimental group and mothers had 6(18%) studied upto primary education.
- Highest percentage of fathers 11(32%) in control group and mothers 16(47%) had studied upto secondary education.
- Highest percentage of fathers in experimental group 17(50%) and 18(53%) in control group were daily wages.
- Similarly in mothers 9(26%) in experimental group and in control group were 19(56%) were housewives.
- Most of the children 31(91%) in experimental group and 19(56%) in control group received previous information regarding food borne diseases and food safety.
- The pre-test mean score percentage of knowledge regarding food borne diseases and food safety among children in experimental group were 47.07% (12.71±3.10) whereas in post-test mean score percentage were 65.48% (17.68±3.0). The estimated 't' value was 10.267 which is significant at $P \leq 0.001$ level. This shows the effectiveness of planned teaching programme on knowledge regarding food borne diseases and food safety among children.
- The post-test mean scores regarding food borne diseases and food safety in experimental group was 12.53±2.16. The estimated 't' value was 8.128 which is significant at $P \leq 0.001$ level.
- In experimental group and control group there is no association between the knowledge and the demographic variables such as age, sex, religion, educational and occupational status of the parents, area of living, and previous knowledge regarding food borne diseases and food safety. Hence H_3 was rejected.

CONCLUSION

This experimental study is done to assess the effectiveness of planned teaching programme on knowledge regarding food borne diseases and food safety among children in selected schools at Salem. The findings of the study showed that the planned teaching programme was more effective in improving the knowledge of the children regarding food borne diseases and food safety. There was no association between the pre and post-test knowledge score and the demographic variables in experimental group and control group.

Food borne disease is increasingly recognized as one of the world's emerging infectious disease. Food swallowed all over the world by children, expectant mother and every one of us is fully contaminated. Safe food has become an universal concern because the health of the human beings is in danger. The simplest and effective way to provide adequate knowledge is by education. Children are the future consumers. We are in the position to educate the future consumers as health care professional and thereby try to adopt the proper food safety methods in order to reduce the incidence of food borne diseases among children.

IMPLICATIONS

Nursing practice

1. Nurses working in the school setups can identify the children with food borne diseases and create awareness regarding the food safety methods.
2. The nursing personnel can organize regular meetings for school children to improve their knowledge, attitude, and practice about the food storage, preparation, clean environment, hygienic practices and hand washing techniques.
3. Nurses can use the puzzles to teach the children on topics related to health in hospital settings.

Nursing education

1. Current concepts in the preventive and promotive health care of children could be insisted in the nursing curriculum.
2. Nursing personnel in the community and pediatric departments should be given in service education to update their knowledge on food borne diseases and food safety measures.
3. As a change agent the nurse educator have to prepare the nursing curriculum to assist the nursing students to educate the children.
4. Seminars, discussions and conferences can be arranged regarding the food borne diseases and food safety.

Nursing administration

1. The nurse administrator can organize educational programme for school health nurse, community health nurse and Anganwadi workers related to food safety.
2. Considerable amount in budget can be allotted for the school health programmes.
3. Nurse administrator can organize workshops for the nurses working in the community related to preventive medicine.

Nursing research

1. The finding of the study can be disseminated through publications and presentations in conferences and seminars.
2. Educational institutions and service organizations can motivate researchers for implementing the teaching programmes to children through playway method.

RECOMMENDATIONS

1. A descriptive study can be done to identify the incidence of food borne diseases and food safety among children.
2. A comparative study can be done to assess the knowledge of children in urban and rural area on food borne diseases and food safety.

3. A comparative study can be done to assess the effectiveness of teaching with variety of A.V. aids on food borne diseases and food safety.
4. A study can be done to identify practice of children regarding food borne diseases and food safety.

Summary

This chapter is dealt with summary, conclusion, implication of nursing practice and recommendations.

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ANNEXURE - A

LETTER SEEKING PERMISSION TO CONDUCT A RESEARCH STUDY

From

Ms.V.Jessy,
Final Year M.Sc(N).,
Sri Gokulam College of Nursing,
Salem, Tamilnadu.

To

The Principal,
Sri Gokulam College of Nursing,
Salem.

Respected Sir/ Madam,

Sub: Letter seeking permission to conduct a research study – Reg..

I, **Ms.V.Jessy,** Final year M.Sc(N) student of Sri Gokulam College of Nursing, Salem have selected the below mentioned statement of the problem for the research study to be submitted to The Tamilnadu Dr.M.G.R Medical University, Chennai, as partial fulfillment for the award of Master of Science in Nursing.

Topic: "A study to assess the effectiveness of planned teaching programme on knowledge regarding foodborne diseases and food safety among children in selected schools at Salem".

I wish to seek the administrative permission to conduct the research study at Sri Ramalinga Vallalar Higher Secondary School and Sri Gayathri Higher Secondary School, Salem.

Kindly do the needful. Thanking you.

Yours Sincerely,

Date:

Place: (Ms.V.Jessy)

ANNEXURE - B

LETTER REQUESTING PERMISSION TO CONDUCT RESEARCH STUDY

SRI GOKULAM COLLEGE OF NURSING
3/836, Periyakalam, Neikkarapatti, Salem - 636 010.
Phone : 0427 - 6544550,2272240,2272250 Fax : 0427 - 2270200, 2447077
Email : sgcon2001@yahoo.com, sgcon2001@gmail.com

Date : .....

LETTER REQUESTING PERMISSION TO CONDUCT RESEARCH STUDY

To

The Headmaster,

Sri Ramalinga Vallalar Higher Secondary School,

Old Suramangalam,

Salem.

Respected Sir/ Madam,

Sub: Permission to conduct research project – Reg.

This is to introduce Ms.Jessy.V, Final year M.Sc (Nursing) student of Sri Gokulam College of Nursing. She is to conduct a research project which is to be submitted to The Tamilnadu Dr. M.G.R. Medical University, Chennai, as partial fulfillment of University requirement for the award of M.Sc(Nursing) Degree.

Topic: "A study to assess the effectiveness of planned teaching programme on knowledge regarding foodborne diseases and food safety among children in selected schools at Salem.

I request you to kindly permit her to conduct research project in Sri Ramalinga Vallalar Higher Secondary School, Salem from 31.08.2015 to 26.09.2015. She will adhere to the policies and regulations of your institution.

Thanking you.

Yours Sincerely,

Date:

Place:

HEAD MASTER
Sri Ramalinga Vallalar
Self-finance Hr. Sec. School,
Suramangalam, Salem - 5.

PRINCIPAL
Sri Gokulam College of Nursing
SALEM – 636 010.

SRI GOKULAM COLLEGE OF NURSING
3/836, Periyakalam, Neikkarapatti, Salem - 636 010.
Phone : 0427 - 6544550,2272240,2272250 Fax : 0427 - 2270200, 2447077
Email : sgcon2001@yahoo.com, sgcon2001@gmail.com

Date : .....

LETTER REQUESTING PERMISSION TO CONDUCT RESEARCH STUDY

To

The Headmaster,

Sri Gayathri Higher Secondary School,

Sithanur, Salem.

Respected Sir/ Madam,

Sub: Permission to conduct research project – Reg.

This is to introduce Ms.Jessy.V, Final year M.Sc (Nursing) student of Sri Gokulam College of Nursing. She is to conduct a research project which is to be submitted to The Tamilnadu Dr. M.G.R. Medical University, Chennai, as partial fulfillment of University requirement for the award of M.Sc(Nursing) Degree.

Topic: "A study to assess the effectiveness of planned teaching programme on knowledge regarding foodborne diseases and food safety among children in selected schools at Salem.

I request you to kindly permit her to conduct research project in Sri Ramalinga Vallalar Higher Secondary School, Salem from 31.08.2015 to 26.09.2015. She will adhere to the policies and regulations of your institution.

Thanking you.

Yours Sincerely,

Date:

Place:

HEADMASTER
SRI GAYATHRI Hr. Sec. SCHOOL
PARAKKADU,
SALEM - 636 302.

PRINCIPAL
Sri Gokulam College of Nursi
SALEM – 636 010.

ANNEXURE - C

LETTER REQUESTING OPINION AND SUGGESTIONS OF EXPERTS FOR CONTENT VALIDATY OF THE RESEARCH TOOL

From

Ms.V.Jessy,
Final Year M.Sc(N).,
Sri Gokulam College of Nursing,
Salem, Tamilnadu.

To

(Through proper channel)

Respected Sir/ Madam,

Sub: Requesting opinion and suggestions of experts for establishing content validating of the tool.

I, **Ms.V.Jessy,** Final year M.Sc(N) student of Sri Gokulam College of Nursing, Salem have selected the below mentioned statement of the problem for the research study to be submitted to The Tamilnadu Dr.M.G.R Medical University, Chennai, as partial fulfillment for the award of Master of Science in Nursing.

Topic: "A study to assess the effectiveness of planned teaching programme on knowledge regarding foodborne diseases and food safety among children in selected schools at Salem.

I request you to kindly validate the tool developed for the study and give your expert opinion and suggestions for necessary modifications.

Thanking you.

Yours Sincerely,

Date:

Place: **(Ms.V.Jessy)**

Enclosed:

1. Certificate of validation.
2. Criteria checklist of evaluation of tool.
3. Tool for collection of data.
4. Intervention

ANNEXURE – D

TOOL FOR DATA COLLECTION

SECTION – I: DEMOGRAPHIC VARIABLES

Instructions to the Participants: Please read the instructions carefully and respond to the item by giving answer in the appropriate space provided. The information provided by you will be kept confidential and used by the researcher only for project work.

1) Sample Number ( )

2) Age in years

a) 11 years ( )

b) 12 years ( )

c) 13 years ( )

3) Sex

a) Male ( )

b) Female ( )

4) Standard

a) 6^{th} ( )

b) 7^{th} ( )

c) 8^{th} ( )

5) Area of living

a) Urban ( )

b) Rural ( )

6) Religion

a) Hindu ( )

b) Muslim ( )

c) Christian ( )

d) Others ( )

7) Parents educational status	Father	Mother
a) Primary	( )	( )
b) Secondary	( )	( )
c) Higher Secondary	( )	( )
d) Degree	( )	( )

8) Parents occupation	Father	Mother
a) Unemployed	( )	( )
b) Daily wages	( )	( )
c) Private employee	( )	( )
d) Government employee	( )	( )
e) Self employed	( )	( )
f) Business	( )	( )

9) Previous source of information regarding food borne diseases and food safety.

a) No information ( )

b) Friends/ relatives ( )

c) Teachers ( )

d) Mass Media ( )

e) Electronic Media ( )

SECTION- II

CLOSE ENDED QUESTIONNAIRE RELATED TO FOODBORNE DISEASES & FOOD SAFETY

Instructions to the participants: Please read the statements carefully and respond to the items by placing "tick mark (✓)" against any one item which you feel is correct in the appropriate space provided. The information provided by you will be kept confidential and used only for the project work.

A) FOOD BORNE DISEASE

1) What is meant by food borne disease?

a) Infection caused by contaminated food and water ( )

b) Infection caused by chemicals ( )

c) Infection caused by eating raw foods ( )

d) I don't know ( )

2) What is the major cause of food borne diseases?

a) Pesticides ( )

b) Hair and dust ( )

c) Micro organisms ( )

d) I don't know ( )

3) What is the main type of micro-organism responsible for food poisoning?

a) Bacteria ( )

b) Parasite ( )

c) Mould ( )

d) I don't know ( )

4) What is the common mode of transmission of food borne diseases?

a) Transportation ( )

b) Feco – oral route ( )

c) Adultration ( )

d) I don't know ( )

5) In which of the following do bacteria grow easily?

a) Dry conditions ( )

b) Light ( )

c) Water, food and right temperature ( )

d) I don't know ( )

6) How to identify the food has enough bacteria to cause food poisoning?

a) It will have different taste and smell ( )

b) It will have a different colour ( )

c) It will appear normal ( )

d) I don't know ( )

7) What are all the signs and symptoms of food borne diseases?

a) Leg pain, toothache ( )

b) Sore throat, Cough ( )

c) Fever, vomiting, stomach cramps ( )

d) I don't know ( )

8) Why most of the food borne illnesses go undiagnosed?

a) Symptoms may not appear for a week or more ( )

b) Most victims die before treatment ( )

c) The symptoms are not serious enough to warrant a hospital visit ( )

d) I don't know ( )

9) What are the chemical hazards of food contaminants?

a) Insects ( )

b) Food itself (stones, seeds) ( )

c) Poor cleaning practices ( )

d) I don't know ( )

10) How to prevent foodborne illnesses?

a) Food safety measures ( )

b) Surveillance ( )

c) Vaccination ( )

d) I don't know ( )

B) FOOD SAFETY

1. Clean Hands

11) When is hand washing to be done?

a) After touching animals ( )

b) After using toilets ( )

c) Before eating ( )

d) All the above ( )

12) What are the basic steps for washing hands?

a) Wash thoroughly with water and dry ( )

b) Wash hands rub on antiseptic solutions ( )

c) Apply hand wash liquid, wash thoroughly rinse and use paper towels ( )

d) I don't know ( )

13) What is the reason for drying the hands after washing them?

a) To avoid driping of water everywhere ( )

b) To control the spread of bacteria and germs with wet hands ( )

c) To avoid spilling of kitchen utensils by wet hands ( )

d) I don't know ( )

14) How long are the hands to be washed?

a) Atleast 20 seconds ( )

b) Atleast 1 minute ( )

c) Atleast 2 minutes ( )

d) I don't know ( )

2) Keeping clean kitchen and utensils

15) Which of the following practice could cause cross contamination?

a) Storing raw chicken in a tightly sealed container on the bottom shelf of a fridge. ( )

b) Using separate cutting board for raw and ready to eat foods ( )

c) Using the same knife for cutting raw chicken and then fresh vegetables. ( )

d) I don't know ( )

16) How to wash the fresh vegetables before cooking?

a) Wash with soap and hot water ( )

b) Wash with anti- bacterial solutions ( )

c) Wash under cool running water ( )

d) I don't know ( )

17) Which is the acceptable way to clean a cutting board after using raw foods?

a) Wash with hot soapy water ( )

b) Wash with hot water rinse with breach powder ( )

c) Wash with cool running water ( )

d) I don't know ( )

18) How to wash the utensils after cooking?

a) Immediately after eating under running water ( )

b) Wash them with soap and water ( )

c) Wash hands, wash the utensils soon after eating and dry them ( )

d) I don't know ( )

3. Seperating raw food from cooked food

19) Where should raw meat be stored in a refrigerator?

a) At the top shelf separately ( )

b) In the middle shelt ( )

c) At the bottom ( )

d) I don't know ( )

20) What type of food has to be separated from cooked food?

a) Raw meat, sea foods ( )

b) Tinned and dry fruits ( )

d) Cereals and pulses ( )

d) I don't know ( )

4. Storing the cooked foods

21) How to store the cooked food?

a) Store it in a refrigerator and reheat again ( )

b) Store it in a warm oven ( )

c) Cool items should be stored in cool boxes and warm items should be stored in hot boxes ( )

d) I don't know ( )

22) What is the preferable method of storing purchased food items at home?

a) Closed container without air circulation ( )

b) Keep it in a refrigerator ( )

c) Dry items has to be stored in dry storage and cool items stored in cool storage method. ( )

d) I don't know ( )

23) What is the ideal temperature of the refrigerator to store the food items?

a) 4 – 10 degrees ( )

b) 1 – 4 degrees ( )

c) 0 – 4 degrees ( )

d) I don't know ( )

5. Safe cooking method

24) Which is the best option to be followed to prevent cross contamination during cooking?

a) Reducing the time that food is in the danger zone ( )

b) Personal cleanliness and hygiene ( )

c) Labeling all food items ( )

d) I don't know ( )

25) Which is the ideal temperature to cook food?

a) 5ºC ( )

b) 75ºC ( )

c) 100ºC ( )

d) I don't know ( )

26) How many times the leftover foods can be reheated?

a) As many times as possible ( )

b) Four times ( )

c) Only once ( )

d) I don’t know ( )

6. Safe temperature

27) What is the best way to stop the growth of bacteria in food?

a) Clean countertops and cutting boards daily ( )

b) Control the temperature of food ( )

c) Cover the food properly ( )

d) I don’t know ( )

ANSWER KEY

I) FOOD BORNE DISEASES

Question Number	Answer
1	a
2	c
3	a
4	b
5	c
6	c
7	c
8	a
9	c
10	a

II) FOOD SAFETY

Question Number	Answer
1	d
2	c
3	b
4	c
5	c
6	c
7	c
8	c
9	c
10	a
11	c
12	c
13	a
14	b
15	b
16	c
17	b

gphpT - m

jdpegh; gw;wpa mbg;gil tpguq;fs;

Fwpg;G:

,q;F Nfl;fg;gl;Ls;s tpguq;fis ftdkhf gbj;J> mjw;fhf nfhLf;fg;gl;Ls;s ,lj;jpy; tpilfis mspf;fTk;. ePq;fs; mspf;Fk; jfty;fs; ufrpakhfTk;> Muha;r;rpf;fhf kl;Lk; gad;gLj;jg;gLk;.

1) khjphp vz; ( )

2) taJ (tUlq;fspy;)

m) 11 taJ ( )

M) 12 taJ ( )

,) 13 taJ ( )

3) ghypdk;

m) Mz; ( )

M) ngz; ( )

4) tFg;G

m) MwhtJ ( )

M) VohtJ ( )

,) vl;lhtJ ( )

5) trpf;Fk; ,lk;

m) fpuhkg;Gwk; ( )

M) efh;g;Gwk; ( )

6) kjk;

m) ,e;J ( )

M) K];yPk; ( )

,) fpwp];Jth; ( )

<) NtW kjj;jth; ( )

7) ngw;Nwhhpd; fy;tpj;jFjp	mg;gh	mk;kh
m) njhlf;ff;fy;tp	( )	( )
M) eLepiyf;fy;tp	( )	( )
,) Nky;epiyf;fy;tp	( )	( )
<) gl;ljhhp	( )	( )

8) ngw;Nwhhpd; Ntiy	mg;gh	mk;kh
m) Ntiyapy;iy	( )	( )

M) jpdf;$yp ( ) ( )

,) jdpahh; epWtd mYtyh; ( ) ( )

<) murhq;f mYtyh; ( ) ( )

c) RaNtiy ( ) ( )

C) njhopy; ( ) ( )

9) cztpdhy; Vw;gLk; Neha;fs; kw;Wk; czTg;ghJfhg;G gw;wp jfty;fs; Kd;djhf vjd; %yk; fpilf;fg;gl;lJ?

m) jfty;fs; njhpahJ ( )

M) ez;gh;fs; / cwtpdh;fs; ( )

,) Mrphpah;fs; ( )

<) xypg;gug;Gfs; %ykhf ( )

c) kpd;jfty;fs; %ykhf ( )

fUtp vz; - M

cztpdhy; Vw;gLk; Neha;fSf;fhd tpdhj;jhs;

Fwpg;G:

,jpy; nfhLf;fg;gl;Ls;s topKiwfis ftdkhf gbj;J> fPo;f;fz;l tptuq;fspy; ePq;fs; rhp vd czUk; tpilapid xd;Wf;F kl;Lk; mjw;fhf nfhLf;fg;gl;l ,lj;jpy; (✓) nra;aTk;. ePq;fs; mspf;Fk; jfty;fs; midj;Jk; ufrpakhf itf;fg;gLk; kw;Wk; ,it Muha;r;rpf;fhf kl;Lk; gad;gLj;jg;gLk;.

1) cztpdhy; Vw;gLk; Neha; vd;why; vd;d?

m) mRj;jkhd jz;zPh; kw;Wk; cztpdhy; Vw;gLj;jg;gLk; ( )

Neha;j;njhw;W

M) Ntjpg;nghUl;fspdhy; Vw;gLfpd;w Neha;j;njhw;W ( )

,) gr;irahf cz;zg;gLk; czTg;nghUl;fspdhy; Vw;gLk; ( )
Neha;j;njhw;W

<) vdf;F njhpatpy;iy ( )

2) ngUk;ghyhd cztpdhy; Vw;gLk; Neha;fSf;fhd fhuzp vd;d?

m) g+r;rpf;nfhy;ypfs; ( )

M) Kb kw;Wk; J}R ( )

,) Ez;fpUkpfs; ( )

<) vdf;F njhpatpy;iy ( )

3) vd;d tifahd Neha;f;fpUkpfs; cztpd; %yk; Vw;gLk; Neha;fSf;F Kf;fpa fhuzpahFk;?

m) ghf;Bhpah ( )

M) xl;Lz;zpfs; ( )

,) g+Q;irfs; ( )

<) vdf;F njhpatpy;iy ( )

4) cztpdhy; Vw;gLk; Neha; nghJthf vg;gb guTfpwJ?

m) gazq;fs; %ykhf ( )

M) kytha; topahf ( )

,) fyg;glk; ( )

<) vdf;F njhpatpy;iy ( )

5) fPo;f;fz;l vtw;wpy; ghf;Bhpah vspjpy; tsu VJthFk;?

m) twl;rp epiyfspy; ( )

M) ntspr;rk; ( )

,) jz;zPh;> czT kw;Wk; VJthd ntg;gepiy ( )

<) vdf;F njhpatpy;iy ( )

6) ghf;Bhpah tp\ghjpg;ig cztpy; Vw;gLj;Jfpd;wJ vd;gij vg;gb mwpa ,aYk;?

m) NtWtpjkhd RitiaAk;. kdKk; nfhz;bUf;Fk; ( )

M) epwj;jpy; khWgl;L fhzg;gLk;. ( )

,) rhjhuzkhfNt fhzg;gLk; ( )

<) vdf;F njhpatpy;iy ( )

7) cztpdhy; Vw;gLk; Neha;fSf;fhd mwpFwpfs; ahit?

m) fhy; typ> gy; typ ( )

M) njhz;il fufug;G> ,Uky; ( )

,) fha;r;ry;> the;jp> tapw;Wtyp ( )

<) vdf;F njhpatpy;iy ( )

8) Vd; cztpdhy; Vw;glf;$ba Neha; ngUk;ghYk; fz;lwpag;gLtjpy;iy?

m) xUthuj;jpw;Fk; Fiwthf mwpFwpfs; ,Ug;gjdhy; ( )

M) rpfpr;irf;F Kd;djhfNt ,we;JtpLtjhy; ( )

,) mwpFwpfs; kpfTk; Mgj;jhf ,y;yhikahy; ( )

<) vdf;F njhpatpy;iy ( )

9) ve;nje;j Ntjpg;nghUl;fspd; Mgj;Jfspdhy; czT khRg;gLfpd;wJ?

m) g+r;rpfs; %yk; ( )

M) czTg;nghUl;fspy; cs;s fy; kw;Wk; tpijfs; %yk; ( )

,) NghJkhd msT J}a;ikapy;yhik ( )

<) vdf;F njhpatpy;iy ( )

10) cztpdhy; Vw;gLk; Neha;fis vt;thW jtph;g;gJ?

m) czTg;ghJfhg;G Kiwfs; ( )

M) rhpahd fz;fhzpg;G Kiwfs; ( )

,) jLg;g+rp ( )

<) vdf;F njhpatpy;iy ( )

M) czTg;ghJfhg;G

1. J}a;ikahd iffs;

11) iffis vg;nghOJ fOt Ntz;Lk;?

m) tpyq;Ffis njhl;l gpwF ( )

M) foptiwfis gad;gLj;jpa gpwF ( )

,) rhg;gpLk; Kd; ( )

<) Nkw;fz;l midj;Jk; ( )

12) iffis fOTtjw;fhd mbg;gil gbepiyfs; ahit?

m) jz;zPhpy; Rj;jkhf fOtp> Jilf;fTk;. ( )

M) iffis fOtp> fpUkpehrpdp fiuriy NghlTk;. ( )

,) Nrhg;G Nghl;L> ed;whf fOtp> fhfpj jhspidf; nfhz;L cyh;j;jTk;. ( )

<) vdf;F njhpatpy;iy ( )

13) iffis fOtpa gpwF mjid cyh;j;Jtjw;fhd fhuzk; vd;d?

m) vy;yh ,lq;fspYk; jz;zPh; rpe;Jtijj; jtph;f;f ( )

M) <ukhd iffspdhy; ghf;Bhpah kw;Wk; fpUkpfis guTtij fl;Lg;gLj;j ( )

,) <ukhd iffspdhy; rikay; ghj;jpuq;fs; jtwp tpohky; ,Ug;gij jLf;f ( )

<) vdf;F njhpatpy;iy ( )

14) vt;tsT Neuk; iffis fOt Ntz;Lk;?

m) Fiwe;jJ 20 tpdhbfs; ( )

M) Fiwe;jJ 1 epkplk; ( )

,) Fiwe;jJ 2 epkplq;fs; ( )

<) vdf;F njhpatpy;iy ( )

2. rikayiwiaAk; ghj;jpuq;fisAk; Rj;jkhf itj;Jf; nfhs;Sjy;

15) fPo;f;fz;l ve;jtifahd gof;fj;jpdhy; czT khRgLj;jg;gLfpd;wJ?

m) gr;irf;fwpia ghj;jpuj;jpy; Nghl;L ,Wf %b Fsph;rhdg; ngl;bapd; fPo; miwapd; ghJfhj;J itf;fg;gLtjhy; ( )

M) gr;irahd czT kw;Wk; mg;gbNa cz;zf;$ba czTg;nghUl;fSf;F jdpahf fj;jp kw;Wk; gyifia gad;gLj;Jtjhy; ( )

,) gr;ir fwpia ntl;ba mNj fj;jpapy; fha;fwpfis ntl;Ltjhy; ( )

<) vdf;F njhpatpy;iy ( )

16) rikg;gjw;F Kd; fha;fwpfisAk;> goq;fisAk; vt;thW fOTtJ?

m) Nrhg;G kw;Wk; jz;zPuhy; fOtTk; ( )

M) fpUkpehrpdp fiurypy; fOtTk; ( )

,) XLk; ePhpy; fOtTk; ( )

<) vdf;F njhpatpy;iy ( )

17) gr;irahd czTg;nghUl;fis ntl;ba gyifia Rj;jg;gLj;Jtjw;F VJthd Kiw vJ?

m) Nrhg;G fye;j RLjz;zPhpy; fOtNtz;Lk; ( )

M) RLjz;zPhpy; fOtp ryitNrhlhtpy; eidf;fTk; ( )

,) XLk; jz;zPhpy; fOtNtz;Lk;. ( )

<) vdf;F njhpatpy;iy ( )

18) rikay; Kbj;j gpwF rikay; ghj;jpuq;fis vt;thW fOtNtz;Lk;?

m) rhg;gpl;l clNdNa ( )

M) Nrhg;G kw;Wk; jz;zPh; nfhz;L fOt Ntz;Lk; ( )

,) iffis fOtp> rhg;gpl;l clNd ghj;jpuq;fis fOtp gpd; cyh;j;jNtz;Lk; ( )

<) vdf;F njhpatpy;iy ( )

3. rikj;j czTg;nghUl;fis rikf;fhf czTg;nghUl;fspypUe;J gphpj;J itj;jy;

19) gr;irahd khkprj;jpid Fsph;rhjdg; ngl;bapd; ve;j miwapy; ghJfhf;f Ntz;Lk;?

m) Nky; miwapy; jdpahf ( )

M) eL miwapy; ( )

,) fPo; miwapy;> midj;J czTg;nghUl;fSf;Fk; fPNo ( )

<) vdf;F njhpatpy;iy ( )

20) ve;nje;j tifahd czTg;nghUl;fs; rikf;fg;gl;l czTg; nghUl;fspypUe;J gphpj;J itf;fg;glNtz;Lk;?

m) gr;irf;fha;fwp> fly; czTfs; ( )

M) lg;ghtpy; milf;fg;gl;l czTfs;> cyh;j;jg;gl;l goq;fs; ( )

,) gapWtiffs; kw;Wk; gUg;G tiffs; ( )

<) vdf;F njhpatpy;iy ( )

4. czTg;nghUl;fis Nrkpj;J itj;jy;

21) rikj;j czTg;nghUl;fis vt;thW Nrkpg;gJ?

m) Fsph;rhjdg; ngl;bf;Fs; Nrkpj;J kPz;Lk; #Lg;gLj;jyhk;. ( )

M) #lhd ghj;jpuj;jpy; Nrkpf;fyhk; ( )

,) Fsph;e;j nghUl;fs; Fsph;jhq;Fk; ghj;jpuj;jpYk;> #lhd nghUl;fs; #L jhq;Fk; ghj;jpuj;jpYk; Nrkpj;J itf;fg;glNtz;Lk;. ( )

<) vdf;F njhpatpy;iy ( )

22) tPl;by; thq;Fk; czTg;nghUl;fis Nrkpj;J itf;f ve;j Kiw VJthdJ?

m) fhw;Nwhl;lk; ,y;yhky; %b itf;fg;gl;l ghj;jpuq;fspy; Nrkpf;fyhk; ( )

M) Fsph;rhjdg; ngl;bf;Fs; Nrkpf;fyhk; ( )

,) twl;rpahd nghUl;fis twl;rp KiwapYk;> Fsp&l;lg;gl;l nghUl;fis Fsph;rhjd KiwapYk; Nrkpf;fNtz;Lk;. ( )

<) vdf;F njhpatpy;iy ( )

23) Fsph;rhjdg; ngl;bf;Fs; czit Nrkpj;J itg;gjw;F VJthd ntg;gepiy vd;d?

m) 4 - 10 bfphp ( )

M) 1 - 4 bfphp ( )

,) 0 - 4 bfphp ( )

<) vdf;F njhpatpy;iy ( )

5. ghJfhg;ghd rikay; Kiwfs;

24) cztpy; rikf;Fk;NghJ FWf;Fj; njhw;W Vw;glhky; jLf;f ve;jtifahd Kiw rpwe;jjhFk;?

m) czT Mgj;jhd epiyapypUf;Fk; Neuj;ijf; Fiwg;gJ ( )

M) jd;Rj;jk; kw;Wk; J}a;ik ( )

,) czTg;nghUl;fspy; ngah;fis gjpg;gJ ( )

<) vdf;F njhpatpy;iy ( )

25) czT ve;j ntg;gepiyapy; rikf;fg;glNtz;Lk;?

m) 5° nry;rpa]; ( )

M) 75° nry;rpa]; ( )

,) 100° nry;rpa]; ( )

<) vdf;F njhpatpy;iy ( )

26) rikj;J kPjKs;s czTg;nghUl;fis kPz;Lk; vj;jid Kiw #LgLj;jNtz;Lk;?

m) vj;jid Kiw ,aYNkh mj;jid Kiw ( )

M) ehd;F Kiw ( )

,) xUKiw kl;Lk; ( )

<) vdf;F njhpatpy;iy ( )

6. VJthd ntg;gepiy

27) ghf;Bhpahtpd; tsh;r;rpia fl;Lg;gLj;j ve;j Kiw rhpahdJ?

m) czTg;nghUl;fis ntl;Lk; gyifiaAk;> Rw;wpAs;s ,lj;ijAk; jpdKk; Rj;jk; nra;jy; ( )

M) cztpd; ntg;gepiyia fl;Lg;gLj;Jjy; ( )

,) czit %b itg;gJ ( )

<) vdf;F njhpatpy;iy ( )

LESSON PLAN ON FOOD BORNE DISEASES AND FOOD SAFETY

ANNEXURE - E

PLANNED TEACHING PROGRAMME ON FOOD BORNE DISEASES AND FOOD SAFETY

Name of the Trainer	:	Ms. Jessy. V
Topic	:	Food borne diseases and food safety
Age group of the children	:	11 – 13 years
Size	:	6
Place	:	Sri Ramalinga Vallalar Higher Secondary School
Time	:	30 minutes
Medium of teaching	:	English
Method of teaching	:	Play way method, lecture cum discussion
A.V. Aids	:	Flash Cards & Puzzles

GENERAL OBJECTIVES

At the end of the class students will gain knowledge regarding food borne diseases and food safety.

SPECIFIC OBJECTIVES

- identify the meaning for food borne diseases
- enlist the causes of food borne diseases
- list down the types of contaminants.
- identify the mode of transmission
- state the signs and symptoms of food borne diseases
- identify the meaning for food safety
- discuss the methods of storing food
- explain methods of food safety.
- explain the steps in hand washing.
- discuss the methods of storing food

Time	Specific objectives	Content	Teacher activity	Learners activity	A.V Aids	Evaluation
		INTRODUCTION Food borne diseases are major public health problems all over the country. "Food borne diseases are often called food borne infections, food borne				

		illnesses or food poisoning". **DEFINITION**				
3 min	Identify the meaning for food borne diseases	The term food borne disease is defined as, "A disease, usually either infections or toxic in nature caused by agents that enter the body through the ingestion of food". The food borne diseases may be subdivided into two; **1. Food borne infections:** The disease is produced by substances such as certain bacteria, parasite, virus, protozoa, that enters the body along with the food. **2. Food intoxication:** It is produced by substances such as toxins or poisonous agents that is present before consumption.	Lecture	Listening	Puzzles	What is meant by food borne diseases?
2 min	Enlist the causes of food	**Causes** The main causes are, • Lack of personal hygiene.	Lecture	Listening	Puzzles	List down and four causes of

	borne diseases	• Urbanization • Tourism • Mass catering services. • Industrialization • Inadequate knowledge on food eating. Improper storage such as, • Storing in uncleaned vessels. • Lack of hygiene among food handlers. • Improper food handling. • Cross contamination is spreading infection from one source to another due to improper food handling. • Insufficiently cooked foods. • If stored at room temperature for more than two hours. **CAUSATIVE AGENTS** • Bacterial • Viral • Parasite • Protozoal **TYPE OF FOOD CONTAMINANTS**				food borne diseases?

3 mins	List down the types of food contaminants	**Biological contaminants:** Biological contaminants are any microbial contaminations that can cause the food borne illnesses. This includes the food items such as, • Mushrooms and seafood **Physical contaminants:** Any foreign bodies that accidentally find its way into food. **Chemical contaminants:** A chemical substance that can cause food borne diseases such as, • Toxic materials • Pesticides • Cleaning materials • Preservatives **Physical hazards:** • Food can become contaminated with physical hazards from food handlers. (e.g) Jewellery, Hair. • Cleaning activities (steel, wool, scourers and	Lecturer	Listening	Puzzles	List down any two food contaminants?

		cloths) • Premises (dust, flaking paint) • Faulty equipments (nuts, bolts, screws and filings) • Insects and vermin (dead or live insects, rodent droppings) • From the food itself (seeds or stones that may be present in the raw food). **Chemical Hazards** • Food can become contaminated with chemical hazards from poor cleaning practices. (e.g) Incorrectly diluted chemicals. • Incorrectly stored chemicals (storing chemicals in food containers) • Food handlers (perfumes) • The use of inappropriate chemicals in the premises and equipment (diesel- powered forklifts in a stores area). • Non food grade lubricants in the equipment. **MODE OF TRANSMISSION**				

5 mins	Identify the mode of transmission of food borne diseases	• Mode of transmission of food borne diseases occur via oral route. • Some organisms rely on human whereas some organism rely on the animal for carrying the infection. • Cross contamination occurs because of handling of food after handling the raw foods. • Depending upon the pathogens and the severing, food contamination occurs during production, processing and handling of food items. **SIGNS AND SYMPTOMS** • Diarrhoea • Vomiting • Nausea • Headache • Stomach cramps • Fever	Lecture	Listening	Puzzles	What is the mode of transmission of food borne diseases?

1 min	State the signs and symptoms of food borne diseases	**SUMMARY:** Till now we have discussed about introduction of food borne diseases, definition, causes, causative agents, types of food contaminants, mode of transmission and signs and symptoms. **CONCLUSION** Food borne diseases lead to life threatening complications it untreated. **FOOD SAFETY** **Introduction** The products that an individual takes into the body in order to provide energy to live and grow is called food safety. This includes carbohydrate, protein, fats, vitamins and minerals. Food is a good culture medium and potential carrier of infection. So the protection of food from contaminating pathogens results in preventing food borne diseases and awareness is essential regarding food safety.	Lecture	Discussion	Puzzles	List any four signs and symptoms of food borne diseases?

3 mins	Identify the meaning for food safety.	**FOOD SAFETY:** It means knowing how to avoid the spread of micro organism when preparing, buying and storing food. **WHY FOOD SAFETY IS IMPORTANT** Food safety is important to protect against food borne diseases in order to maintain the quality of life. The main steps in food safety. • Clean hands • Clean kitchen and utensils • Separate raw food from cooked food • Proper storage • Buying food • Proper cooking • Maintaining adequate temperature	Lecture cum discussion	Interaction	Puzzles	What is mean by food safety?
5	Explain the methods of	**1. CLEAN HANDS** **Hand washing:** Hand washing is the most effective way to stop the	Lecture	Listening	Puzzles	What are the method of food

min	food safety	spread of food borne illnesses. **When to wash the hands:** • After handling pets • After using toilets • After touching the cuts and wounds • After sneezing, coughing and blowing nose • Before eating • Before handling foods • Before and after visiting the sick. • After outdoor activities • When the hands are dirty. **How to wash the hands** • Wet the hands with the running water • Apply the soap • Rub the palms together • Interface the finger and rub the hands together. • Interlock fingers and rub the back of fingers of both hands. • Rub thumb in a rotatory manner followed by the area between index and thumb finger of both hands. • Rub the finger tips on palm for both hands.				safety?
2 min	Explain the steps in hand washing		Lecture cum discussion	Interaction	Puzzles	Explain the steps in hand washing?

		• Rub the wrist in a rotatory manner. • Rinse and dry thoroughly. **2. KEEPING THE KITCHEN CLEAN** • Wash all the kitchen utensils with soap and water. • After cleaning the utensils dry them well. • Keep animals out of the kitchen. • Always cover the food items. **Special concerns in schools:** **Food brought to school for the special events.** • Ensure that the food brought to school is safe during preparation, transportation and in maintaining the temperature. • Do not accept the hazardous foods such as (sea foods and mushroom) more than a day. **The things to be considered at the school level.** • Place bags, books away from the eating area.				

		Not on a kitchen table where the germs can transferred from one area to another. • Clean out lunch boxes and throw away the left over foods. • Do not eat foods that are bruised or spoiled. • Keep nails short and clean • Take bath daily. • Change clothing daily. • Shampoo hair regularly. • Keep the comb clean. • Wear gloves when handling food. • Ensure teeth are cleaned and maintained. • Clean, well fitting shoes should be maintained and used. • Do not smoke where food is stored or prepared or served. • Do not wear jewelling or watches when you are preparing the food. **Separate: (the raw food from cooked food)** • Keep the uncooked food separate from the cooked food. • Keep raw foods, poultry and sea foods separately.				

		• Protect the food in the refrigerator by placing it in a covered container. • Use separate cutting boards and plates for poultry, raw food and meat. **Storage** • Use the separate area for preserving the perishable or frozen food. • Perishable food should not be left more than 2 hours at the room temperature. • The food items should be stored in a tight containers. • Do not store the food near chemicals. • Store the food items away from; • Rodents such as rats and mice. • Insects including ants and cockroaches. **FOOD STORAGE METHOD** **Chilled storage method:** Chilled storage refers to storing food in a refrigerator between (8°C – 5°C) that ensures the safe temperature.				

5 mins	Discuss about the method of storing food	**Dry storage method:** Foods such as cereals, rice, pulses, canned and tinned foods can be stored in a, • Cool ventilated area. • Always place the new items at the back of the shelf to allow those with the shortest expiry dates to be used first. **Buying food** Buying the safe food is very much important to ensure freshness and prevent food borne diseases. • When purchasing the food items check the lable for the expiry date. • Do not buy the crackled eggs. • Do not buy the fruits and vegetables if they bruised or broken. • Check whether the food items are properly sealed. • Check for the presence of worms. • When buying the food items check the food standards such as Codex Aliment Arius,	Lecture	Listening	Puzzles	What are the methods of storing food?

		Agmark and bureau of Indian standards. **Proper cooking** • Wash the vegetables thoroughly before cooking. • Cook the food items thoroughly. **Temperature:** • Do not keep the food at the room temperature for a long time (more than two hours). • Perishable food should be kept under the refrigerator. (Eg) Milk, curd, spices. • Reheating is important for the food items which was kept in the refrigerator. **Packing safe lunches:** Use a proper container (hot packs) to keep the food warm till the lunch time.				

		Keep the cold items in the cool temperature: Make sure that the food should maintain the same temperature till it is consumed by the children. **SUMMARY** Till now we have discussed about the meaning for food safety, terms, importance of food safety, how to maintain the food safety including clean hands, clean utensils, storage, preparation and purchasing, food safety among school children. **CONCLUSION** Food safety is important to prevent food related diseases and the education regarding food borne diseases plays a role in primordial prevention.				

cztpdhy; Vw;gLk; Neha;fSk;> czTg; ghJfhg;G KiwfSk;

cztpdhy; Vw;gLk; Neha;fSk;> czTg; ghJfhg;G KiwfSk;

gapw;Wtpg;gth; ngah; : tp.n[]p

jiyg;G : cztpdhy; Vw;gLk; Neha;fSk;> czTg;ghJfhg;G KiwfSk;

taJg;gphpT : 11 taJ Kjy; 13 tajpw;F cl;gl;l Foe;ijfs;

Foe;ijfspd; vz;zpf;if: 6

,lk; : = ,uhkypq;f ts;syhh; cah;epiyg;gs;sp

Neuk; : 30 epkplk;

gapw;Wtpf;Fk; nkhop : jkpo;

gapw;Wtpf;Fk; Kiw : tpsf;fk; kw;Wk; fye;Jiuahly;

gad;gLj;jg;gLk; ghl

tpsf;f cgfuzk; : tpsf;f ml;il kw;Wk; tpisahl;L top gapy;jy;

nghJthd Fwpf;Nfhs; : ,e;j ghlf;Fwpg;gpd; epiwtpy; gs;spf; Foe;ijfs; cztpdhy; Vw;glf;$ba Neha;fisg; gw;wpAk;> czTg; ghJfhg;G Kiwfs; gw;wpAk; Nghjpa msT mwpTj;jpwidg; ngw;Wf;nfhs;syhk;.

Kf;fpa fUg;nghUs;:

1. cztpd; %yk; Vw;gLk; Neha;fisg; gw;wp tiuaWf;f ,aYk;.
2. cztpd; %yk; Vw;gLk; Neha;fSf;fhd fhuzpfisg; gw;wp tpsf;Fjy;

3. czTg;nghUl;fs; khRgLk; tpjq;fisg; gw;wp gl;baypLjy;
4. cztpdhy; Vw;glf;$ba tpahjpfs; guTk; Kiwfisg; gw;wpa tpsf;fk;.
5. cztpd; %yk; guTk; Neha;fspd; mwpFwpfis tpsf;f ,aYk;.
6. czTg;ghJfhg;gpid tpthpf;f ,aYk;.
7. czTg;ghJfhg;G Kiwfis $w ,aYk;.
8. iffOTk; gbepiyfis tpthpf;f ,aYk;
9. czTg;nghUl;fis ghJfhf;Fk; Kiwfis tpthpf;f ,aYk;.

Neuk;	**Kf;fpa Nehf;fk;**	**nghUslf;fk;**	**Mrphpahpd; nray;**	**khzth;fspd; nray;**	**jPh;T**
		Kd;Diu cztpdhy; Vw;glf;$ba Neha;fs; ek; ehl;by; ngUk;ghyhd kf;fspilNa cs;s gpur;ridahf cs;sJ. cztpdhy; Vw;glf;$ba Neha;fis cztpdhy; Vw;glf;$ba Neha; njhw;Wfs;> cztpdhy; Vw;glf;$ba Neha;fs; my;yJ cztpdhy; Vw;glf; $ba tp\ ghjpg;G vd;Wk; $wyhk;.			

		tiuaiw: cztpdhy; Vw;glf;$ba Neha; vd;gJ fpUkpfspdhNyh> ,aw;ifapdhy; Vw;gLj;jf;$ba er;R nghUl;fspdhNyh> cz;Zk; cztpd; topahf clYf;Fs; nrd;W Nehapd; jhf;fj;ij Vw;gLj;JtjhFk;. ,jid ,uz;L tiffshfg; gphpf;fyhk;. **fpUkpfs; Vw;gLj;jf;$ba czTj; njhw;WNeha;:** cztpdhy; Vw;glf;$ba Neha; itu];> ghf;Bhpah> my;yJ g+Q;irfs; %ykhf cz;Zk; cztpd; %yk; clYf;Fs; Eioe;J Neha; njhw;iw Vw;gLj;Jfpd;wJ.			
3 epkplk;	gs;spf; Foe;ijfSf;F cztpdhy; Vw;gLk; Neha;fis tiuaWf;f ,aYk;.	**cztpYs;s tp\ ghjpg;gpdhy; Vw;glf;$ba Neha;fs;** cztpid cz;gjw;F Kd;ghfNt VNjDk; tp\ ghjpg;G my;yJ er;Rj;jd;ik fye;j cztpid cl;nfhs;Stjd; %ykhfTk; czTj;njhw;W Vw;gLfpd;wJ. **fhuzpfs;:** Kf;fpa fhuzpfshtd: • jd;Rj;jkpy;yhik • efh;kakhjy;	cztpdhy; Vw;gLk; Nehapid gw;wp tpsf;Fjy;	mh;j;jj;ij Ghpe;J nfhs;Sjy;	cztpdhy; Vw;glf;$ba Neha; vd;why; vd;d?

2 epkplk;	cztpdhy; Vw;gLk; Neha;fSf;fhd fhuzpfis gl;baypl ,aYk;	• Rw;Wyh nry;Yjy; • kpfg;nghpa mstpy; rikay; Vw;ghLfs; nra;jy; (gz;bif> jpUkzk;) • njhopw;kakhjy; **jtwhf ifahSk; Kiwfs;:** • Rj;jkpy;yhj ghj;jpuq;fspy; czit ghJfhj;J itj;jy; • czitf; ifahSgth;fsplk; NghJkhd Rj;jk; ,y;yhik • jtwhf czit ifahSk; Kiwfshy; Xhplj;jpypUe;J kw;nwhU ,lj;jpw;F Neha; fpUkpfis gug;Gjy; • NghJkhd msT czit rikf;fhky; ,Ug;gJ. • czit rikj;j ,uz;L kzp Neuj;jpw;F gpwFk; miwapd; ntg;gepiyapNyNa itj;jpUg;gJ. **czit khRgLj;jf;$ba nghUl;fspd; tiffs;:** **1.caphpay; khRf;fs;** jhtuq;fs; kw;Wk; Ez;fpUkpfs; cztpy; fyg;gjhy; Vw;glf; $ba Neha;fs;. ,jpy; mlq;Fk; czTg;nghUl;fspy; rpy: • fhshd; kw;Wk; fly; rhh;e;j czTg;nghUl;fs; **2. czT rhuhj nghUl;fspdhy; czT khRgLk;**	cztpdhy; Vw;gLk; Neha;fis gw;wp tpsf;Fjy;	cztpdhy; Vw;gLk; Neha;fis gw;wp mwpe;J nfhs;Sjy;	cztpdhy; Vw;gLk; Neha;fisg; gl;baypLjy;

3 epkplk;	czit khRg;gLj;jf; $ba nghUl;fspd; tiffis gl;baypLf.	**Kiwfs;** czT rhuhj kw;w nghUl;fs; njhpahky; jtWjyhf czTg;nghUl;fspy; fyg;gjhFk; ,e;j nghUl;fspy; rpythtd> • czit ifahSgth;fs; %yk; czT khRgLj;jg;gLfpd;wJ. (v.fh) mzpe;jpUf;Fk; eiffs; kw;Wk; Kb. • J}a;ikg;gLj;j gad;gLj;Jk; nghUl;fspdhy; khRgLfpd;wJ. (v.fh) Jzp> gQ;R> ,Uk;G. • Rw;wp ,Uf;Fk; ,lq;fspd; %yk; (v.fh) J}R kw;Wk; tz;zg;g+r;R. • jtwhd nghUl;fspdhYk; Vw;gLfpd;wJ. (v.fh) Mzp> jpUF Nghd;wit • g+r;rpfspdhy; Vw;gLfpd;wJ. (v.fh) vypfspdhy; tUk; fopTfs; kw;Wk; g+r;rp> GOf;fs;. • cztpNyNa fw;fs; kw;Wk; czT my;yhj tpijfs; fye;Js;s czTg;nghUl;fs;. **3. Ntjpg;nghUl;fspd; fyg;G:** Ntjpg;nghUl;fs; czTg;nghUl;fspy; fye;J tpLtjhy; tuf; $ba czT rk;ge;jg;gl;l Neha;fs;. mitahtd: • czitg; gjg;gLj;Jk; nghUl;fs; • czTg;nghUl;fs; khRgLtjw;F Kf;fpa fhuzk; -	czit khRg;gLj;jf; $ba nghUl;fspd; tiffis tpsf;Fjy;	czit khRg;gLj;jf; $ba nghUl;fspd; tiffis Ghpe;J nfhs;Sjy;	czit khRg;gLj;jf; $ba nghUl;fspd; tiffs; ahit?

		NghJkhd msT J}a;ikia filg;gpbf;fhky; ,Ug;gjhy; Ntjpg; nghUl;fs; %yk; czTg;nghUl;fs; khRg;gLfpd;wJ. (v.fh) rhpahd Kiwapy; fyf;fg;glhj Ntjpg;nghUl;fs;. • jtwhd Kiwapy; Nrkpj;J itf;fg;gLk; Ntjpg;nghUl;fs; (v.fh) czT Nrkpj;J itf;Fk; ghj;jpuq;fspy; Ntjpg;nghUl;fis Nrkpj;J itg;gJ. • czT ifahSk; egh;fs; gad;gLj;Jk; thridj; jputpaq;fs;. • ,Uf;Fk; ,lq;fisr; Rw;wp NghJkhd guhkhpg;G ,y;yhky; Ntjpg;nghUl;fis Nrkpj;J itg;gJ. **cztpdhy; Vw;glf;$ba Neha;fs;** • xU rpy fpUkpfs; Neha;fis gug;g kdpjid rhh;e;jpUf;fpd;wd. NtW rpy tpyq;Ffis rhh;e;J ,Uf;fpd;wd. • rhpahd czTf;ifahSk; Kiw ,y;yhikahy; xUthplkpUe;J kw;nwhUtUf;F fpUkpfis guTjy;. • me;je;j fpUkpfspd; tPhpaj;ijg; nghWj;J czT cw;gj;jp> czTr;Row;rp kw;Wk; czTf; ifahSk; Kiwfspd; %yk; czTg;nghUl;fs; khRg;gLfpd;wd.			

5 epkplk;	gs;spf; Foe;ijfs; cztpdhy; Vw;glf; $ba Neha;fs; guTk; tpjj;jpid gl;baypl ,aYk;.	**cztpd; %yk; guTk; Neha;fspd; mwpFwpfs;** • tapw;Wg;Nghf;F • the;jp • Fkl;ly; • jiytyp • tapw;Wtyp • fha;r;ry; ,Jtiu ehk; cztpd; %yk; guTk; Neha; vd;why; vd;d? cztpdhy; Vw;glf;$ba Neha;fspd; tiffs;> fhuzpfs;> czit khRg;gLj;jf;$ba nghUl;fspd; tiffs;> czT nghUl;fspd; %yk; Neha; vt;thW guTfpd;wJ kw;Wk; mjd; mwpFwpfisg; ghh;j;Njhk;. mLj;J czTg; ghJfhg;G Kiwfisg; gw;wp ghh;g;Nghk;. **czTg; ghJfhg;G:** **Kd;Diu:** czTg;nghUl;fs; Ez;fpUkpfs; tsh;tjw;F VJthdjhFk;. vdNt> czTg;nghUl;fs; nfl;Lg; Nghfhky; ,Uf;f fpUkpfsplkpUe;J ghJfhf;fg;gl;lhy; cztpd; %yk; Vw;glf;			

1 epkplk;	cztpd; %yk; guTk; Neha;fspd; mwpFwpfis tpsf;f ,aYk;.	$ba Neha;fis jLf;fyhk;. NkYk; czT ghJfhg;G gw;wpa tpopg;Gzh;T mtrpakhdjhFk;. **tiuaiw:** **czTg;ghJfhg;G:** czTg;nghUl;fis jahhpf;Fk; NghJk;> thq;Fk; NghJk;> ghJfhj;J itf;Fk; NghJk; vt;thW mtw;iw fpUkpfs; jhf;fhky; jLg;gJ vd;gij mwptNj czTg; ghJfhg;G. **czTg; ghJfhg;gpd; mtrpak;:** czTg; ghJfhg;gpd; mtrpak; vd;dntd;why; cztpd; %yk; Vw;gLk; Neha;fsplkpUe;J ghJfhf;fTk;> tho;f;ifj;juj;jpid milaTk; czTg;ghJfhg;G kpfTk; mtrpak;. **czTg; ghJfhg;gpd; topKiwfs;** • J}a;ikahd iffs; • J}a;ikahd rikayiw kw;Wk; ghj;jpuq;fs; • rikf;fhj nghUl;fis ed;F rikj;j nghUl;fspy; ,Ue;J	cztpd; %yk; guTk; Neha;fis tpsf;Fjy;	cztpd; %yk; guTk; Neha;fis gw;wpa fye;Jiuahly;	cztpd; %yk; guTk; Neha;fs; vitNaDk; ehd;fpid Fwpg;gpLf?

3 epkplk;	gs;spf; Foe;ijfs; czTg; ghJfhg;gpid tpthpf;f ,aYk;. gs;spf; Foe;ijfs; czTg; ghJfhg;G Kiwfis $w ,aYk;.	gphpj;J itj;jy; • rhpahd ghJfhg;G Kiwfs; • nghUl;fis thq;Fk; Kiwfs; • rhpahf rikj;jy; • rhpahd ntg;gepiyapy; czTg; nghUl;fisg; guhkhpj;jy; **J}a;ikahd iffs;:** **iffis fOTjy;:** • iffOTtJ kpfTk; Kf;fpakhdjhFk;. ,jd; %yk; cztpdhy; guTk; Neha;fisj; jLf;fyhk;. **vg;nghOJ iffis fOtNtz;Lk;?** • nry;yg;gpuhzpfis njhl;l gpwF • fopg;giwfis gad;gLj;jpa gpwF • Gz; my;yJ fhaq;fisj; njhl;l gpwF • Jk;ky;> ,Uky; kw;Wk; %f;F rpe;jpa gpwF • rhg;gpLk; Kd; • czTg;nghUl;fis ifahSk; Kd; • Nehahspfis ghh;f;fr; nry;Yk;Kd;> ghh;j;Jtpl;L te;j gpwF • ntspapy; Ntisfis Kbj;j gpwF • iffs; mOf;fhf ,Ue;jhy;	czTg; ghJfhg;G gw;wp vLj;Jiuj;jy; kw;Wk; fye;Jiuahly;	khzth;fs; fUj;Jf;fis gfph;jy; ftdpj;jy;	

5 epkplk;		**iffis vt;thW fOTtJ** • iffis XLk; jz;zPhpy; fOtTk;. • ed;F Nrhg;G NghlTk; • cs;sq;iffis xd;whf Nrh;j;J Nja;f;fTk;. • xU tpuYf;F ,ilapy; kw;nwhU tpuiy Eioj;J ,uz;L iffisAk; Nrh;j;J Nja;f;fTk;. • xU iffia kw;nwhU ifapd; Nky; itj;J ,uz;L iffspd; gpd;Gwj;jpYk; Nja;f;fTk;. • fl;il tpuiy ed;whf Nja;j;J fOtTk;. • tpuy; Edpfis cs;sq;ifapy; itj;J Nja;f;fTk;. • kzpf;fl;il ed;whf Nja;f;fTk;. • gpd;dh; XLk; ePhpy; iffis fOtp> ed;whf cyh;j;j Ntz;Lk;. **rikayiw ghj;jpuq;fis J}a;ikahf itj;jy;** • rikay; ghj;jpuq;fis Nrhg;G kw;Wk; jz;zPuhy; ed;whf fOtNtz;Lk;. • ghj;jpuq;fis fOtpa gpd;G ed;whf cyh;j;j Ntz;Lk;. • rikayiwf;Fs; nry;yg;gpuhzpfs; tUtijj; jtph;f;fNtz;Lk;. • czTg;nghUl;fis rhpahd Kiwapy; %b itf;fNtz;Lk;.	czTg; ghJfhg;G Kiwfis gw;wp tpthpj;jy;		czTg; ghJfhg;G Kiwfs; ahit?

		gs;spf;$lq;fspy; ftdpf;fNtz;bait: • rpy rpwg;G epfo;Tfspd; NghJ gs;spf;F nfhz;L tug;gLk; czT tiffs; • gs;spfSf;F rpwg;G epfo;Tfspd; NghJ nfhz;L tug;gLk; czTg;nghUl;fs; jahhpg;gJ Kjy; Fwpg;gpl;l ,lj;ijr; nrd;wilAk; tiu rhpahd ntg;gepiyapy; ghJfhf;fg;gLfpd;wjh vd;gij cWjp nra;Jf;nfhs;sNtz;Lk;. • czTg; nghUl;fshd fhshd; kw;Wk; fly; rhh;e;j czTg;nghUl;fs; xU ehisf;F Nky; gjg;gLj;jg;gl;lhy; mjid thq;Ftij jtph;f;fTk;. • gs;sp igfs; kw;Wk; ghlg;Gj;jfq;fs; rhg;gpLk; ,lj;jpy; itg;gijj; jtph;f;f Ntz;Lk;. ,y;iynadpy; mtw;wpypUe;J fpUkpfs; czTg;nghUl;fSf;Fs; gut mjpf tha;g;G cs;sJ. • czT rhg;gpl;l gpd;dh; czTg; ghj;jpuj;jpy; kPjKs;s czTg;nghUl;fis tPrp tpl Ntz;Lk;. czT ghj;jpuj;ij fOt Ntz;baJ mtrpak;. • fhak;gl;l my;yJ mOfpa my;yJ mghptpjkhf mstpy; nghpa czTg;nghUl;fis cz;zf;$lhJ. • efq;fis rpwpajhfTk;> Rj;jkhfTk;			

		itj;Jf;nfhs;sNtz;Lk;. • jpdKk; Fspf;fNtz;Lk;. • jpdKk; Fspj;j gpwF cilfis khw;w Ntz;Lk;. • jtwhky; jiyf;F Fspf;fNtz;Lk;. • rPg;Gfis Rj;jkhf itj;Jf;nfhs;s Ntz;Lk;. • gw;fis J}a;ikahf ghJfhf;f Ntz;Lk;. • czitf; ifahSk; NghJ ifAiwfis mzptJ mtrpak;. • fhyzpfis J}a;ikahf itj;Jf;nfhs;s Ntz;Lk;. ed;whf nghUe;Jk; fhyzpfis cgNahfpg;gJ mtrpak;. • czTg;nghUl;fis rikf;Fk; ghpkhWk; ,lq;fspy; Gifg;gpbf;ff;$lhJ. • czTg;nghUl;fis ifahSk;NghJ eif kw;Wk; iff;fbfhuk; mzptij jtph;f;f Ntz;Lk;. **gphpj;J itj;jy; (rikf;fhj czTg;nghUl;fis rikj;j czTg;nghUl;fspypUe;J gphpj;J itj;jy;** • rikf;fhj> ghy; rk;ge;jg;gl;l> fly; rhh;e;j czTg;nghUl;fis kw;w czTg; nghUl;fspy; ,Ue;J gphpj;J itf;fNtz;Lk;. • czTg;nghUl;fis jdpj;jdpahf igfspy; Nghl;L Fsph;rhjdg; ngl;bf;Fs; ghJfhj;J itf;fNtz;Lk;. • mirtg; nghUl;fis rikf;Fk;NghJ mjw;fhf jdpahf fj;jp kw;Wk; jdp ghj;jpuq;fisg; gad;gLj;j			

		Ntz;Lk;. **czTg;nghUl;fis ghJfhj;J itj;jy;** • gjg;gLj;jg;gl;l nghUl;fis ghJfhf;f jdp ,lk; xJf;fNtz;Lk;. • gjg;gLj;jg;glf; $ba nghUl;fs; ,uz;L kzp Neuj;jpw;F Nky; ntspapy; itj;jpUf;ff;$lhJ. • ,urhadg; nghUl;fs; cs;s ,lj;jpy; czTg;nghUl;fis itf;ff;$lhJ. • czTg;nghUl;fis vyp> vwk;G> fug;ghd; g+r;rpfsplk; ,Ue;J ghJfhj;J itf;fNtz;Lk;. **czitg; ghJfhg;gjpy; ,uz;L Kiwfs; cs;sd** **1. Fsp&l;lg;gl;l ghJfhg;G Kiwfs;:** Fsph;rhjdg; ngl;bapy; nghUl;fis Nrfhpg;gijNa Fsp&l;lg;gl;l ghJfhg;G Kiw vd;fpNwhk;. ,jpy; 5°C Kjy; 8°C tiu ntg;gepiy gad;gLj;jg;gLfpwJ. **2.twl;rpahf ghJfhf;Fk; Kiwfs;:** • czTg;nghUl;fs;> gapW tiffs;> mhprp> lg;ghtpy; milj;J itf;fg;gl;l czT tiffis <ukpy;yhj ,lj;jpy;			

		ghJfhf;fNtz;Lk;. • czTg;nghUl;fis fhw;Nwhl;lk; kpFe;j ,lj;jpy; itf;fNtz;Lk;. • Gjpjhf thq;fpa czTg;nghUl;fis gioa nghUl;fSf;F gpd;dhy; itf;fNtz;Lk;. mt;thW nra;tjhy; gioa nghUl;fis Kjypy; gad;gLj;jyhk;. **czTg;nghUl;fis thq;Fk; Kiwfs;:** • czTg;nghUl;fis thq;Fk;NghJ Gjpajhf cs;sjh vd;gij cWjp nra;Jf; nfhs;tjd; %yk; cztpd; %yk; guTk; Neha;fisj; jLf;fyhk;. • czTg;nghUl;fis thq;Fk;NghJ fhyhtjp MFk; Njjpia ftdpj;J thq;fNtz;Lk;. • fPwy; tpOe;j Kl;ilfs; thq;Ftijj; jtph;f;fNtz;Lk;. • czTg;nghUl;fis thq;Fk;NghJ mjpy; GOf;fs; cs;sjh vd;W ghpNrhjpj;J thq;f Ntz;Lk;. • thq;Fk; czTg;nghUl;fspy; juk; rhh;e;j Kj;jpiufs; cs;sjh vd;gijAk; cWjpr; nra;J nfhs;sNtz;Lk;. **rhpahf rikf;Fk; Kiwfs;** • czTg;nghUl;fis (fha;fwpfis ed;whf fOtp gpwF rikf;fNtz;Lk;.			

		rhpahd ntg;gepiy • Fsph;gLj;JtJ kpfTk; Kf;fpakhd xd;whFk;. • gjg;gLj;jf;$ba nghUl;fs; (ghy;> japh;> [hk;) Mfpatw;iw Fsph;rhjdg; ngl;bapy; itf;fNtz;Lk;. • Fsph;rhjdg; ngl;bapypUe;J vLj;J kPz;Lk; gad;gLj;Jk; NghJ mjid kPz;Lk; #LgLj;j Ntz;Lk;. • #lhd czTg;nghUl;fis #L jhq;Fk; ghj;jpuj;jpy; Nghl;L itf;fNtz;Lk;. • Fsph;e;j czTg;nghUl;fis mjw;fhd ntg;gepiyia jhq;Fk; tpjj;jpy; rhpahd ghj;jpuj;jpy; Nghl;L itf;fNtz;Lk;. ,Jtiu ehk; czTg;ghJfhg;G Kiwfs;> iffis fOTk; Kiwfs;> Rj;jkhd rikaiw kw;Wk; ghj;jpuq;fs;> ghJfhg;G Kiwfs;> czTg;nghUl;fis thq;Fk; Kiwfs; kw;Wk; rhpahd ntg;gepiy Mfpatw;iwg; gw;wp ghh;j;Njhk;. **KbTiu:** czTg;ghJfhg;G kpfTk; Kf;fpakhd xd;W. Vnddpy; ,J cztpd; %yk; guTk; Neha;fspy; ,Ue;J ek;ik ghJfhj;Jf; nfhs;s cjTfpd;wJ. NkYk; Njitahd msT czTg; ghJfhg;gpidg; gw;wpa tpopg;Gzh;T kw;Wk; ghJfhg;G Fwpj;j mwpTk; cztpd; %yk; tUk; Neha;fis ‘tUKd; fhf;f”			

	gs;spf; Foe;ijfs; czTg; nghUl;fis ghJfhf;Fk; Kiwfis tpsf;f ,aYk;	cjTfpd;wJ.	czitg; ghJfhf;Fk;	ftdpj;jy;	

5 epkplk;			Kiwfs; gw;wp tpsf;Fjy;		czTg; nghUl;fis ghJfhf;Fk; Kiwfs; ahit?

எப்பொழுது கைகளை கழுவ வேண்டும் ?

வெளிவேலைகளை முடித்த பிறகு

தும்மல், இருமல் மற்றும் மூக்கு சிந்திய பிறகு

செல்ல பிராணிகளை தொட்ட பிறகு

கழிப்பறைகளை பயன்படுத்திய பிறகு

புண் அல்லது காயங்களை தொட்ட பிறகு

நோயாளிகளை பார்க்க செல்லும் முன் மற்றும் பிறகு

உணவு பொருட்களை கையாளும் முன்

கைகள் அழுக்காக இருந்தால்

கைகளை எவ்வாறு கழுவ வேண்டும் ?

கைகளை ஓடும் தண்ணீரில் கழுவவும்

நன்கு சோப்பு போடவும்
உள்ளங்கைகளை ஒன்றாக சேர்த்து தேய்க்கவும்

ஒரு விரலுக்கு இடையில் மற்றொரு
விரலை நுழைத்து இரண்டு கைகளையும்
உள்ளங்கைகளையும் சேர்த்து தேய்க்கவும்

கட்டை விரலை நன்றாக
தேய்த்து கழுவவும்

மணிக்கட்டை நன்றாக
தேய்க்கவும்

இரண்டு கைகளின் பின்புறம்
தேய்க்க வேண்டும்

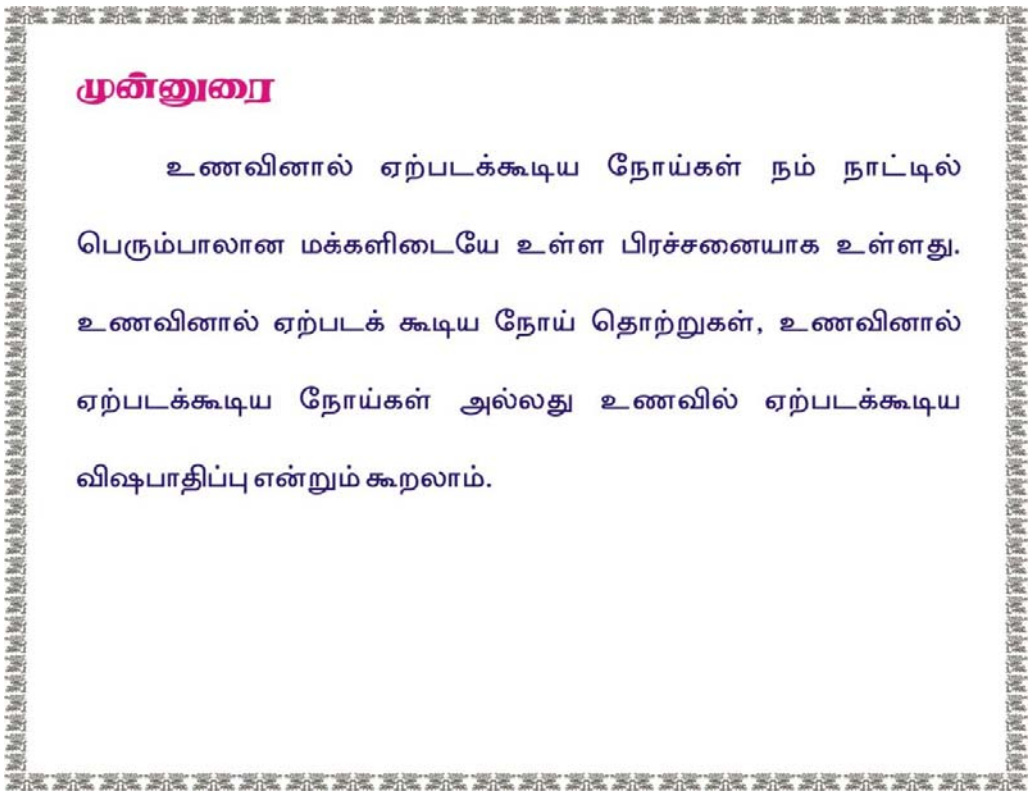
ஒரு கையை மற்றொரு கையின் மேல்
வைத்து இரண்டு கைகளின் பின்புறத்திலும்,
நகங்களிலும் தேய்க்கவும்

விரல் நுதுகளை உள்ளங்கையில்
வைத்து தேய்க்கவும்

ஓடும் தண்ணீரில் கைகளை கழுவி உலர்த்தவும்

ANNEXURE - F

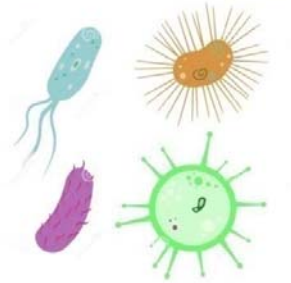
HEALTH EDUCATION – FLASH CARDS (TAMIL)



உணவினால் ஏற்படக்கூடிய நோயின் வகைகள்

கிருமிகள் ஏற்படுத்தக்கூடிய உணவுத்
தொற்று நோய்

வைரஸ், பாக்டீரியா, பூஞ்சை



உணவில் உள்ள விஷ
பாதிப்பினால் ஏற்படக்கூடிய நோய்கள்

நச்சுச்தன்மை

காரணிகள்

தன்சுத்தமின்மை

நகர்மயமாதல்

சுற்றுலா செல்லுதல்

மிகப்பெரிய அளவில் சமையல்
ஏற்பாடுகள்

தொழிற்மயமாதல்

உணவை மாசுபடுத்த கூடிய பொருட்களின் வகைகள்

1. உயிரியல் மாசுக்கள்

காளான்

கடல் சார்ந்த உணவு பொருட்கள்

தாவரங்கள்

2. உணவு சாராத பொருட்களினால் உணவு மாசுபடும் முறைகள்

உணவு
கையாளுபவர்கள் மூலம்

தூய்மைபடுத்த
பயன்படும் பொருட்களினால்

சுற்றி இருக்கும் இடங்களின் மூலம்

பூச்சிகளின் மூலம்

2. உணவு சாராத பொருட்களினால் உணவு மாசுபடும் முறைகள்

உணவு அல்லாத பொருட்களின் கலப்பு

உணவில் உள்ள கற்கள், உணவு சாராத விதைகள்

3. வேதிப்பொருட்களின் கலப்பு

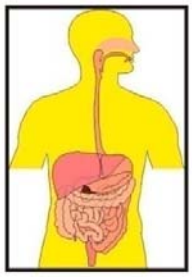
கலப்பட உணவு

உணவுப்பொருட்களை வேதிப் பொருட்கள் வைக்கப்பட்டிருந்த குப்பிகளில் வைத்தல்

வசிக்கும் இடங்களை சுற்றி போதுமான பராமரிப்பு இல்லாமல் வேதிப்பொருட்களை வைத்திருத்தல்

உணவினால் ஏற்படக்கூடிய நோய் பரவும் வீதம்

வாய் வழியாக பரவுகின்றது



நோய்தொற்று உள்ளவர்கள்
உணவை கையாளுவதன் மூலம்

கிருமிகள் நோய்களை பரப்புவதற்கு
மனிதனையும், சில கிருமிகள் விலங்கினையும் சார்ந்து இருக்கிறது

உணவின் மூலம் பரவும் நோய்களின் அறிகுறிகள்

வயிற்றுப்போக்கு

வாந்தி

குமட்டல்

தலைவலி

வயிற்றுவலி

காய்ச்சல்

உணவுப் பாதுகாப்பு முறைகள்

முன்னுரை

உணவுப் பொருட்கள் நுண் கிருமிகள் வளர்வதற்கு ஏதுவானதாகும். உணவுப் பொருட்களை கெட்டுப் போகாமல் இருக்க கிருமிகளிடமிருந்து பாதுக்காக்கப்பட்டால் உணவின் மூலம் ஏற்படக்கூடிய நோய்களை தடுக்கலாம்.

உணவுப் பாதுகாப்பின் வழிமுறைகள்

- தூய்மையான கைகள்
- தூய்மையான சமையலறை மற்றும் பாத்திரங்கள்
- சமைக்காத பொருட்களை நன்கு சமைத்த பொருட்களில் இருந்து பிரித்து வைத்தல்
- சரியான பாதுகாப்பு முறைகள்
- பொருட்களை வாங்கும் முறைகள்
- சரியாக சமைத்தல்
- சரியான வெப்பநிலையில் உணவுப் பொருட்களைப் பராமரித்தல்

தூய்மையான கைகள்

கைகளை கழுவுவதன் மூலம் உணவினால் ஏற்படும் நோய்களை தடுக்கலாம்
எப்பொழுது கைகளை கழுவ வேண்டும்?

செல்லபிராணிகளை தொட்டபிறகு

கழிப்பறைகளை பயன்படுத்தி பிறகு

புண் அல்லது காயங்களை தொட்ட பிறகு

தும்பல், இருமல் மற்றும் மூக்கு சிந்தியபிறகு

சாப்பிடும் முன்

உணவு பொருட்களை கையாளும் முன்

நோயாளிகளை பார்க்க செல்லும் முன் மற்றும் பிறகு

வெளி வேலைகளை முடித்த பிறகு

கைகள் அழுக்காக இருந்தால்

கைகளை எவ்வாறு கழுவ வேண்டும்?

கைகளை ஓடும் தண்ணீரில் கழுவ

நன்கு சோப்பு போடவும்
உள்ளங்கைகளை ஒன்றாக
சேர்த்து தேய்க்கவும்

இரண்டு கைகளின் பின்புறம்
தேய்க்கவேண்டும்

ஒரு விரலுக்கு இடையில் மற்றொரு
விரலை நுழைத்து இரண்டு கைகளையும்
உள்ளங்கைகளையும் சேர்த்து தேய்க்கவும்

ஒரு கையை மற்றொரு கையின் மேல்
வைத்து இரண்டு கைகளின் பின்புறத்திலும்,
நகங்களிலும் தேய்க்கவும்

கட்டை விரலை நன்றாக
தேய்த்து கழுவும்

விரல் நுனிகளை உள்ளங்கையில்
வைத்து தேய்க்கவும்

மணிக்கட்டை நன்றாக
தேய்க்கவும்

ஓடும் தண்ணீரில் கைகளை
கழுவி உலர்த்தவும்

தூய்மையான சமையல் அறை மற்றும் பாத்திரங்கள்

சமையல் பாத்திரங்களை
சோப்பு மற்றும் தண்ணீரால் கழுவ வேண்டும்

பாத்திரங்களை கழுவிய பின் நன்றாக
உலர்த்த வேண்டும்

சமையல் அறைக்குள் செல்லப்பிராணிகள்
வருவதை தவிர்க்கவேண்டும்

உணவுப்பொருட்களை நன்றாக
மூடி வைக்கவேண்டும்

பள்ளிக்கூடங்களின் கவனிக்கவேண்டியவை

காளான் மற்றும் கடல் சார்ந்த உணவு பொருட்களை ஒரு நாளைக்கு மேல் பதப்படுத்தப்பட்டால் அதனை தவிர்க்கவும்

பள்ளிபைகள் மற்றும் பாட புத்தங்களை சாப்பிடும் இடத்தில் வைப்பதை தடுக்கவும்

காயம் பட்ட அல்லது அழுகிய உணவுப் பொருட்களை உண்ணக்கூடாது

நகங்களை சிறியதாகவும், சுத்தமாகவும் வைத்துக்கொள்ள வேண்டும்

தன்சுத்தம்

தினமும் குளிக்கவேண்டும்

தவறாமல் வாரம் இருமுறை தலைக்கு குளிக்கவேண்டும்

சீப்புகளை சுத்தமாக வைத்துக்கொள்ளவேண்டும்

பற்களை காலை மற்றும் படுக்கும்முன் துலக்கி தூய்மையாக வைக்கவும்

கைகளை நன்றாக கழுவிய பின் உணவு உண்ணவேண்டும்

காலணிகளை தூய்மையாக வைத்துக்கொள்ளவேண்டும்

உணவுப்பொருட்களை பரிமாறும் இடங்களின் புகைபிடிக்க கூடாது

உணவுப்பொருட்களை கையாளும் பொழுது நகை மற்றும் கைக்கடிகாரங்களை தவிர்க்கவேண்டும்

சமைக்காத உணவுப்பொருட்களை சமைத்த உணவுப்பொருட்களிலிருந்து தனிமைபடுத்தல்

பால் சம்பந்தப்பட்ட உணவுப்பொருட்களை தனியாக வைக்கவேண்டும்

உணவுப்பொருட்களை தனிதனியாக பைகளில் போட்டு குளிர்சாதன பெட்டிக்குள் பாதுகாத்துவைக்கவேண்டும்

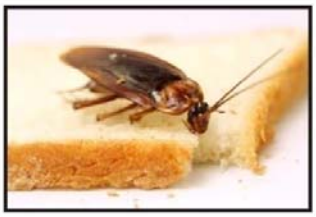
அசைவ பொருட்களை சமைக்கும்போது அதற்காக தனியாக கத்தி மற்றும் தனி பாத்திரங்களை பயன்படுத்தவேண்டும்

உணவுப்பொருட்களை பாதுகாத்து வைத்தல்

பதப்படுத்தப்பட்ட பொருட்களை
பாதுகாக்க தனி இடம் ஒதுக்கவேண்டும்

பதப்படுத்தக்கூடிய பொருட்களை
2 மணி நேரத்திற்குமேல் வெளியில்
வைத்திருக்ககூடாது

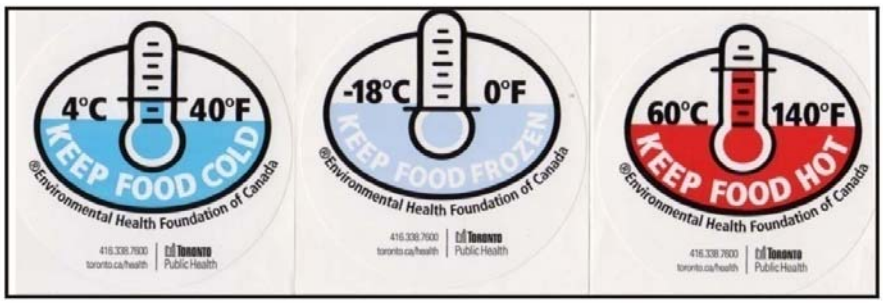
உணவுப்பொருட்களை எலி,
எறும்பு கரப்பான் பூச்சிகளிடமிருந்து
பாதுக்காக்கவேண்டும்



இராசயான பொருட்கள் உள்ள
இடத்தில் உணவுப்பொருட்களை
வைக்ககூடாது.

உணவை பாதுகாப்பதில் இரண்டு முறைகள் உள்ளன

குளிரூட்டப்பட்ட பாதுகாப்பு முறைகள்

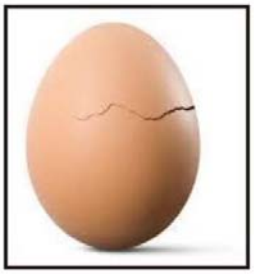


வறட்சியான முறையில் பாதுகாப்பு முறைகள்

உணவுப்பொருட்களை வாங்கும் முறைகள்

உணவுப்பொருட்களை வாங்கும்போது காலாவதி ஆகும் தேதியை கவனித்து வாங்கவேண்டும்

கீறல் விழுந்த முட்டைகள் வாங்குவதை தவிர்க்கவும்



வாங்கும் உணவுப்பொருட்களின் தரம் சார்ந்த முத்திரங்கள் உள்ளதா என்று உறுதிசெய்துக்கொள்ளவேண்டும்

உணவுப்பொருட்களை வாங்கும்போது அதில் புழுக்கள் உள்ளதா என்று பரிசோதித்து வாங்கவேண்டும்.

சரியாக சமைக்கும் முறை மற்றும் சரியான வெப்பநிலை

காய்கறிகளை நன்றாக கழுவி பின்னர் சமைக்கவேண்டும்

குளிர்சாதன பெட்டியிலிருந்து மீண்டும் பயன்படுத்தும் உணவுப்பொருட்களை நன்றாக சூடுபடுத்தவேண்டும்

சூடான உணவுப்பொருட்களை அதற்கான பாத்திரத்தில் போட்டுவைக்கவேண்டும்

குளிர்ந்த உணவுப்பொருட்களை அதற்கான வெப்பநிலையை தாங்கும் விதத்தில் இருக்கவேண்டும்

பதப்படுத்தக் கூடிய பொருட்களை குளிர்சாதன பெட்டிக்குள் வைக்கவேண்டும்

முடிவுரை

உணவுப் பாதுகாப்பு மிகவும் முக்கியமான ஒன்று, ஏனெனில் இது உணவின் மூலம் பரவும் நோய்களில் இருந்து நம்மை பாதுகாத்துக் கொள்ள உதவுகின்றது. மேலும் தேவையான அளவு உணவுப் பாதுகாப்பினைப் பற்றிய விழிப்புணர்வு மற்றும் பாதுகாப்பு குறித்த அறிவும் உணவின் மூலம் வரும் நோய்களை "வருமுன் காக்க" உதவுகின்றது.

PUZZLE GAME

ANNEXURE – G

CERTIFICATE OF VALIDATION

This is to certify that the tool developed by **Ms.JESSY.V**, Final year M.Sc Nursing student of Sri Gokulam College of Nursing, Salem (Affiliated to The Tamil Nadu Dr. M.G.R Medical University) is validated and can proceed with this tool and content for the main study entitled **"A Study to Assess the Effectiveness of Planned Teaching Programme on Knowledge regarding Food borne diseases and Food Safety among Children in Selected Schools at Salem"**

Signature with Date

ANNEXURE – H

LIST OF EXPERTS

1. **Dr.R.Ramalingam.MD, D.Ch., FAAP.,**
   Consultant Paediatrician,
   Sri Gokulam hospital, Salem.
2. **Dr.G.Prakash, B.Sc., MBBS., DPH., MBA (HM)., PGDD (Dip).,**
   Consultant Community Medicine,
   Sri Gokulam hospital, Salem.
3. **Mrs.C.Kavitha.C, M.Sc.(N),**
   Vice Principal,
   Department of Child Health Nursing,
   Shanmuga College of Nursing,
   Salem.
4. **Mrs.Maheswari, M.Sc (N).,**
   Vice Principal,
   Vinayaka Missions Annapoorna College of Nursing,
   Salem.
5. **Dr.Mrs.S.Malathi, M.Sc.(N),**
   HOD, Department of Community Health Nursing,
   Vinayaka Missions Annapoorna College of Nursing,
   Salem.
6. **Mrs.R.Radha, M.Sc.(N),**
   Associate Professor,
   Department of Child Health Nursing,
   Shanmuga College of Nursing,
   Salem.
7. **Dr. Kannan,**
   Dietician,
   Sri Gokulam Hospital,
   Salem.

CERTIFICATE OF VALIDATION

This is to certify that the tool developed by **Ms.JESSY.V**, Final year M.Sc Nursing student of Sri Gokulam College of Nursing, Salem (Affiliated to The Tamil Nadu Dr. M.G.R Medical University) is validated and can proceed with this tool and content for the main study entitled **"A Study to Assess the Effectiveness of Planned Teaching Programme on Knowledge regarding Food borne diseases and Food Safety among Children in Selected Schools at Salem"**

Dr. R. Kamalingam, M.D. D.C.H
Reg. No: 27922
Sri Gokulam Hospital
SALEM-4

5/8/15

Signature with Date

CERTIFICATE OF VALIDATION

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Signature with Date 10/06/2015

Dr. G. PRAKASH,
B.Sc.,M.B.B.S.,DPH.,MBA.(HM).,PGDD.(Dip),
Consultant Community Medicine,
SRI GOKULAM HOSPITAL
SALEM-636 004.

CERTIFICATE OF VALIDATION

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11/8/15

Signature with Date

CERTIFICATE OF VALIDATION

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Signature with Date

14/8/15

CERTIFICATE OF VALIDATION

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19/8/15.

Signature with Date

CERTIFICATE OF VALIDATION

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R. Radha 14/8/15

Signature with Date

CERTIFICATE OF VALIDATION

This is to certify that the tool developed by **Ms.JESSY.V**, Final year M.Sc Nursing student of Sri Gokulam College of Nursing, Salem (Affiliated to The Tamil Nadu Dr. M.G.R Medical University) is validated and can proceed with this tool and content for the main study entitled **"A Study to Assess the Effectiveness of Planned Teaching Programme on Knowledge regarding Food borne diseases and Food Safety among Children in Selected Schools at Salem"**

Signature with Date

K. Kannan, M.Sc.(F&N)
Consultant Dietitian.

ANNXURE – I

CERTIFICATE OF EDITION

TO WHOMEVER IT MAY CONCERN

Certified that the dissertation paper titled "**A study to assess the effectiveness of planned teaching programme on knowledge regarding foodborne diseases and food safety among children in selected schools at Salem". By Ms. V.JESSY,** It has been checked for accuracy and correctness of English language used in presenting the paper is lucid, unambiguous free of grammatical or spelling errors and apt for the purpose.

HM.

Signature

Name & Designation.

B.DEEPALAKSHMI
B.T. ASSISTANT
GOVT. Hr. Sec. SCHOOL
UDAYAPATTI,
SALEM

Date:

TO WHOMEVER IT MAY CONCERN

Certified that the dissertation paper titled "**A study to assess the effectiveness of planned teaching programme on knowledge regarding foodborne diseases and food safety among children in selected schools at Salem". By Ms. V.JESSY,** It has been checked for accuracy and correctness of Tamil language used in presenting the paper is lucid, unambiguous free of grammatical or spelling errors and apt for the purpose.

Signature

Name & Designation.

Date:

ANNEXURE – J

PHOTOS